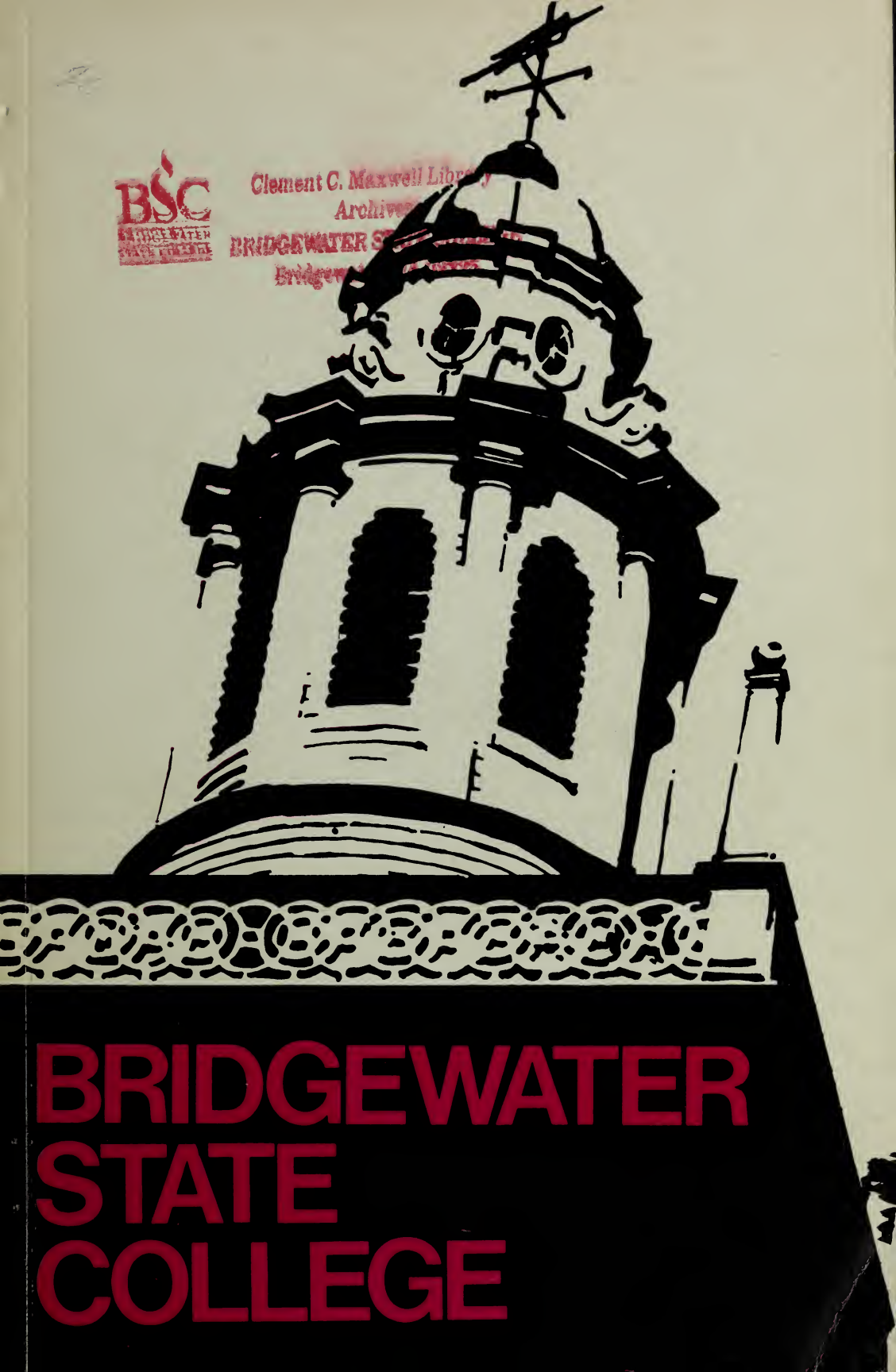


BSC
BRIDGEWATER
STATE COLLEGE

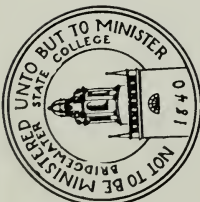
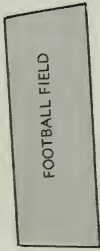
Clement C. Maxwell Library
Archives

BRIDGEWATER STATE COLLEGE
BRIDGEWATER, NJ 08801



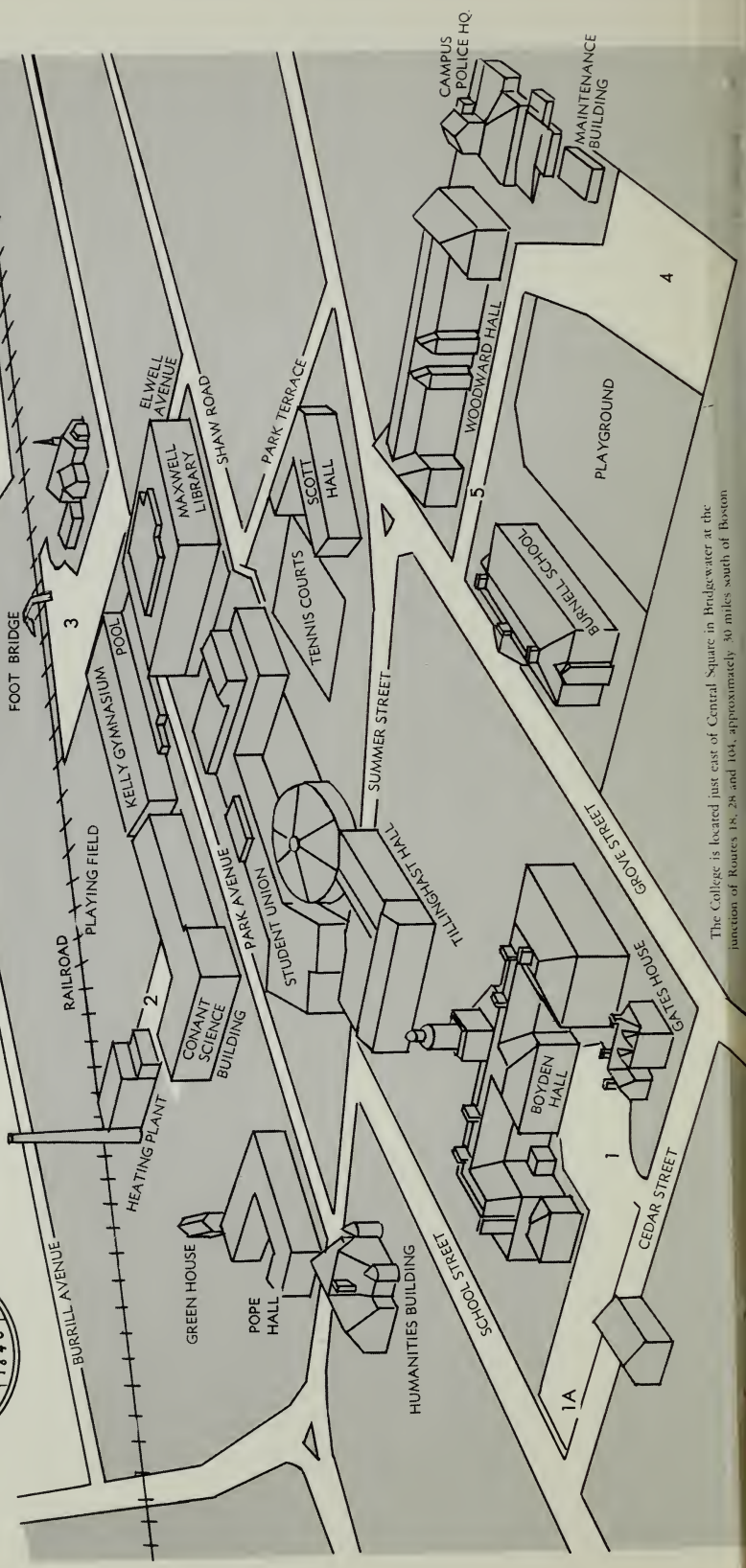
BRIDGEWATER STATE COLLEGE

BRIDGEWATER STATE COLLEGE



PARKING AREAS

- ① Boyden Hall Lot
- 1A Cedar St. Lot
- ② Science Bldg. Lot
- ③ Gymnasium Lot
- ④ Woodward Hall Lot
- ⑤ Burnell School Lot
- ⑥ Great Hill Lot



The College is located just east of Central Square in Bridgewater at the junction of Routes 18, 28 and 104, approximately 30 miles south of Boston.

BRIDGEWATER STATE COLLEGE

1974-1975 UNDERGRADUATE CATALOGUE

Behavioral Sciences

Creative Arts

Humanities

Natural Sciences and Mathematics

Professional Education

Social Sciences

Interdepartmental Programs

For Graduate and Continuing Education programs consult the Graduate Catalogue
or Division of Continuing Education List of Courses.

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Bridgewater State College is accredited by the New England Association of Schools and Colleges, Inc. and the National Council for the Accreditation of Teacher Education and is on the Approved list of the American Chemical Society.

FIRST SEMESTER — 1974

SEPTEMBER

1	2	3	4	5	6	7
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SEPTEMBER

3	Tuesday	General Faculty Meeting
4	Wednesday	Classes Begin at 8 A.M.
5	Thursday	Late Registration — 1:00-3:00 P.M.
10	Tuesday	All College Committee Meetings, 11 A.M.
17	Tuesday	Fall Convocation, 11 A.M.
24	Tuesday	Last Day of Drop-Add for Semester Courses

OCTOBER

14	Monday	Columbus Day — No Classes
15	Tuesday	Monday Class Schedule
25	Friday	First Quarter Ends
28	Monday	Veteran's Day — No Classes
29	Tuesday	Second Quarter Begins

NOVEMBER

1	Friday	Last day for filing "Degree Application" — February graduates
14	Thursday	Advanced Registration for Second Semester, Spring 1975, Begins
26	Tuesday	Thanksgiving Recess Begins at Close of Classes

DECEMBER

2	Monday	Last day for filing "Degree Application" — May graduates
2	Monday	Classes Resume at 8 A.M.
12	Thursday	First Semester Examinations Begin
19	Thursday	First Semester Examinations End
20	Friday	Snow Day — Christmas and Intersemester Recess Begins

Graduate Record Examinations, October 26 and December 14
(Lecture Hall, Conant Science Building)

JANUARY						
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FEBRUARY						
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SECOND SEMESTER — 1975

Monday Classes Begin at 8 A.M.
 Tuesday Late Registration — 1:00-3:00 P.M.
 Friday Last Day of Drop-Add for Semester Courses

Monday Washington's Birthday — No Classes

Friday Third Quarter Ends
 Monday Fourth Quarter Begins
 Friday Spring Recess Begins at Close of Classes

Tuesday Last day for filing "Degree Application" — August graduates
 Monday Classes Resume at 8 A.M.
 Monday Patriot's Day — No Classes
 Monday Advanced Registration for First Semester, Fall 1975, Begins

Wednesday Reading Day
 Thursday Second Semester Examinations Begin
 Thursday Second Semester Examinations End
 Saturday-Sunday Commencement Weekend

Graduate Record Examinations, April 26
 (Lecture Hall, Conant Science Building)



THE COLLEGE

Bridgewater State College, entering its 135th academic year in September of 1974, has grown into a fully accredited, internationally recognized multi-purpose institution, sharing the national tradition of providing high quality education supported in large part by the state.

The College today has experienced over a decade of growth unprecedented in its long history. The undergraduate student body has grown from 1,000 to 3,850 in less than a dozen years, and the academic programs now available to Bridgewater students include twenty major fields of study in the areas of Behavioral Sciences, Creative Arts, Humanities, Natural Sciences and Mathematics, Professional Education, and Social Sciences. The College's faculty currently numbers 246, and the physical plant consists of eighteen major buildings, six of which were constructed within the past ten years, to provide the resources to support the increased demand.

With that growth has come the College's vigorous reaffirmation of dedication to academic excellence and commitment to encouraging the broad educational preparation which is equally essential for making a maximum contribution to profession, community, and nation, and for developing a sound personal life.

THE COLLEGE COMMUNITY

The individual and distinguishing spirit that has marked Bridgewater State College's transition from a small teacher training institution to its present status is the philosophy of College Community, evolved on this campus in the early 1960's and continuously developing today. In the words of Dr. Adrian Rondileau, president of the College since 1962, College Community is explained in this manner:

"Although Bridgewater State College is a rapidly growing institution in number of students, number of faculty and the extending of our buildings and grounds, it strives to be first-rate academically, rather than to be large. It also strives to retain that all-important sense of the personal touch and genuine humanness.

"We of the College are not only proud of our academic excellence, but are equally proud of the sense of College Community in which students, faculty, administrators, alumni, staff and parents have a feeling of belonging, and of working together for great common objectives. This is indeed unusual in this day and age, but it is much more important than it ever has been, if each student is to achieve his full educational potential.

"We welcome students who are interested in these twin goals of academic excellence and a truly cooperative College Community."

THE BRIDGEWATER PURPOSE

Bridgewater State College is an institution dedicated to the education of students for responsible citizenship and for leadership in business, the professions, and other vocations; an education that encourages the qualities that exemplify a moral, ethical, and humane person. The educational environment is designed to stimulate Bridgewater students to explore and develop their talents most fully and to create an atmosphere that is conducive to general personal growth as well as intellectual development.

It is to these purposes and objectives that the College is committed and which have inspired its graduates to make outstanding achievements and lasting contributions in many fields of human endeavor both in this country and abroad.

THE HISTORY OF THE COLLEGE

The Bridgewater story begins on a September morning in 1840 when the school opened its doors for the first time and greeted a student body that consisted of

twenty-one women and seven men. Regarded at best as an experiment in education, the school was one of three founded in Massachusetts to enter into what was then a new enterprise: the formal training of teachers for service in the public schools, an idea that had little widespread support at that time.

As a "Normal School" Bridgewater owed its existence to the vision and persistence of a distinguished Boston lawyer named Horace Mann who in 1837 became the first Secretary of the Massachusetts Board of Education. With the able assistance of such educational leaders as James G. Carter of Lancaster, the Reverend Charles Brooks of Hingham, and the Honorable Edward Dwight of Boston, Mann launched a campaign to convince the General Court of the Commonwealth to establish three normal schools for the training of teachers on a three-year trial basis.

Ultimately, Horace Mann's efforts were rewarded with success, and Bridgewater became one of the three normal schools in this state. Its first principal was Nicholas Tillinghast, a graduate and former instructor at the United States Military Academy at West Point, whose determination and sheer fortitude were to be decisive factors in Bridgewater's survival.

In 1846, just six years after the founding of Bridgewater Normal School, an historic milestone in the annals of teacher education was achieved on this campus. In that year the first building erected specifically for the training of teachers in the United States was constructed at Bridgewater Normal School, and it was to become the first permanent location of teacher education in America.

At the dedication of the new building Horace Mann, witnessing the fruition of his vision, delivered a stirring oration and concluded with a prophetic statement: "Coiled up in this institution as in a spring," he said, "there is a vigor whose uncoiling may wheel the spheres." Bridgewater was no longer an experiment, but a well-established part of the State's educational system.

Nicholas Tillinghast retired in 1853 after thirteen years of exhaustive work, and he was succeeded by Marshall Conant, an engineer by profession with an interest in history and expertise in the sciences, who remained as principal until 1860.

Albert Gardner Boyden, the school's third principal, had been a student under Tillinghast and had returned to teach under him and later Conant. Appointed principal in 1860, A. G. Boyden instituted a period of growth and development that was unmatched in Bridgewater's history until the 1960's, and he remained as principal for over four decades until his retirement in 1906. In that year he was succeeded by his son, Arthur Clark Boyden, who continued the work his father had begun and remained as principal for nearly thirty years. Shortly before his death in 1933 he became the school's first President. Under the Boydens, Bridgewater drew students from all over the United States, Europe, Latin America, Japan, and Burma. In particular, teacher training institutions in Armenia and Japan owe their establishment to Bridgewater graduates of that era.

Each of the succeeding presidents, Dr. Zenos Scott (1933-37), Dr. John Kelly (1937-1951), Dr. Clement C. Maxwell (1952-1962), and Dr. Adrian Rondileau (1962-), has brought to Bridgewater the particular leadership needed during his administration, thus endowing the College with an extraordinary continuity of development.

In 1921 a legislative act empowered the normal schools to award the Bachelor of Science in Education degree. A decade later, in 1932, by an act of the General Court Bridgewater and the other state normal schools became State Teachers Colleges. In 1960 the Commonwealth officially designated Bridgewater and her sister institutions as State Colleges, enabling them to expand the curriculum and offer the Bachelor of Arts degree in addition to the Bachelor of Science in Education.

Bridgewater entered the field of graduate education in 1937 when it first established its Graduate School. What is now the Division of Continuing Education was

added in the late 1940's, making late afternoon and evening classes available to working adults who wished to pursue academic studies.

THE COLLEGE TODAY

The progressive growth of quality academic programs has opened a variety of new and highly promising possibilities for Bridgewater students to explore. Today there are twenty-three academic departments represented in the six Divisions of the College, which are Behavioral Sciences, Creative Arts, Humanities, Natural Sciences and Mathematics, Professional Education, and Social Sciences. The diversity in scope and the options for choosing a particular field of learning have never been more extensive at Bridgewater, whose students are presented with the opportunity to select major studies in many different areas of knowledge.

Today Bridgewater State College offers Bachelor of Arts, Bachelor of Science, and Bachelor of Science in Education degrees, with majors in twenty academic fields.

Additionally, Bridgewater is an active member of several educational consortia with neighboring institutions of higher learning, which allow students to share the resources of their school with cooperating colleges and universities. Among those schools which Bridgewater joins in consortial arrangements are Bristol Community College, Cape Cod Community College, Massachusetts Maritime Academy, Massachusetts Community College, Southeastern Massachusetts University, Stonehill College, Swain School of Design, and Wheaton College.

On the graduate level, Bridgewater State College offers the Master of Arts, Master of Arts in Teaching, Master of Education and Master of Science in Physical Education.

THE CAMPUS TODAY

The Clement C. Maxwell Library: The newest building on the 200-acre campus, can accommodate 2500 students and has a capacity of 425,000 books. It is named for Dr. Clement C. Maxwell, Bridgewater president from 1952 to 1962, who believed that "a library is the heart of a college."

The library now has approximately 140,000 volumes and subscribes to more than 1000 periodicals and newspapers. These are supplemented by microfilm and microfiche holdings, including ERIC, a nationwide pooling of information on education and allied social sciences. Microfiche reproduction facilities are also available.

A curriculum center for teachers in training and in the field offers a large sampling of current texts and allied materials. Indexes and abstracts are available in specialized areas to support curriculum needs and there is a large reference collection. Suggestions from faculty and students for new acquisitions are given careful consideration.

In addition to classroom and seminar rooms, the library has a small auditorium, a media center, offices, a conference room, a browsing area and many individual study areas. Dial-access carrels, listening rooms and private study carrels are also available. The Library Science department is housed on the second floor.

Special collections include an extensive children's collection; the Theodore Roosevelt Collection, and the Horatio Alger Collection both donated by Dr. Jordan Fiore, Director of the Division of Social Sciences; the 20,000 volume "Library of American Civilization" and the 2500 volume "Library of English Literature: Beginnings through 1660," both on ultra-microfiche; a collection of books about the college and town of Bridgewater, as well as by Bridgewater authors; the Charles Dickens Collection; and a collection of early American textbooks.

Accessibility to materials is provided through open stacks in the library itself; a special interlibrary loan service including Bridgewater, Wheaton College, South-

THE COLLEGE

eastern Massachusetts University and Stonehill College; maintenance of a centralized, divided card catalog; and the availability at all times of a reference librarian.

The Student Union Building: The \$6 million Student Union Building, located across a mall from the library facing the Marshall Conant Science Building, serves the varied social and cultural activities of the campus.

The Student Union complex includes a theater wing housing a 1450-seat auditorium equipped with stage equipment rivaling that of most professional theaters. There are dressing rooms, rehearsal rooms, a shop area, a costume room, television and radio studios, listening booths and offices and classrooms for the Speech and Theater Department.

The building also contains colorful lounge areas, conference rooms, a reception room that can accommodate 900 people, a snack bar and a formal dining room. The wing housing the 750-seat cafeteria also has a Student Government room, offices for the college newspaper, a hobby shop, rooms for various student organizations and game rooms. The Student Union building also is home to the campus F.M. station, WBIM, which broadcasts at 91.5.

The College Bookstore is located on the main floor of the Student Union building. The bookstore offers a complete textbook service, an extensive paperback presentation in a variety of subject matter, stationery and school supplies, gift and boutique items, photographic supplies and service, typewriter sales, rentals and service, clothing, art supplies and other items and services.

The Student Union presents a large number of interesting cultural and social programs and activities on a regular basis throughout the year, and also brings to the campus outstanding speakers and personalities to address the College Community.

The Marshall Conant Science Building: Modern equipment housed here for the use of students in the Division of Natural Sciences and Mathematics includes a Varian T-60 nuclear magnetic resonance spectrometer with computer of average transits in the Chemistry Department; the Norelco X-ray diffractometer with powder camera and Laue camera for Earth Sciences and Geography; an AEC-approved laboratory for nuclear physics; a Digital Equipment Corporation PDP-8/1 computer; meteorological equipment that includes a pyro-hellometer and a precision anemometer.

The Department of Biological Sciences is equipped with an Electron Microscope which has greatly enhanced the College's biological study and research capabilities.

The Department of Earth Sciences and Geography has a fully operational climatological and meteorological station on campus.

In addition, there are five acres of botanical gardens and a 20-by-80-foot greenhouse. Additional equipment is itemized under the various departments.

The John J. Kelly Gymnasium: Hub of the Departments of Health and Physical Education, the building contains two gymnasiums, a pool and rooms for Health and Physical Education classes. Equipment includes a treadmill, a cardio-tachometer and bicycle ergometers for the study of the physiology of exercise.

The intercollegiate athletics program, as well as extensive intra-mural and recreation programs for both men and women, are centered at Kelly Gymnasium.

Outdoor athletic facilities include a football-soccer field with permanent seats for 3000 and portable stands for an additional 750; a varsity baseball diamond; a 440-yard track covered with a cork composition surface; space for field events; 20 tennis courts; four softball fields; six fields that can be used for field hockey, lacrosse or soccer; areas for archery and golf classes, and a ski slope surfaced with synthetic ski mats.

Other buildings: Located west of the Student Union, across the quadrangle, is Boyden Hall, the administration building. An outstanding example of traditional campus architecture with imposing white columns and ivy-covered red brick, Boyden provides a compatible contrast with the modern library and Student Union. One wing of the building houses the Horace Mann Auditorium, used now for smaller groups since the construction of the Student Union.

Close to the Administration Building, at the corner of Grove and Cedar Streets, is Gates House, the home of the presidents of Bridgewater, now the residence of Dr. and Mrs. Adrian Rondileau.

Across Grove Street is the Martha M. Burnell School, the laboratory school for Bridgewater students in the Bachelor of Science in Education Curriculum. The school has four grades and a kindergarten. Juniors do their supervised student teaching at Burnell. Classes from the college often meet at the school to observe demonstration lessons provided by the Burnell School faculty.

CAMPUS RESIDENCE HALLS—Newest of the residence halls are the two opened in 1967 on Great Hill.

Durgin Hall accommodates 300 men. **Great Hill** has 300 women. The lower floor of each building contains reception rooms, a conference room, music room, post office, laundry room and a vending machine room. A cafeteria for both men and women is located in Durgin Hall.

Tillinghast Hall, first of all the residences, houses 82 women students. The hall is named for the first principal of the college, Nicholas Tillinghast. Located on the quadrangle between the Administration Building and the Student Union, the residence includes the dining hall for students from the lower campus.

Scott Hall, at the corner of Summer and Grove Streets on the lower campus, is a residence for 100 men.

Woodward Hall, named for Eliza Woodward, a revered teacher who served the college for many years, has 85 double and triple rooms and accommodates about 200 women.

Pope Hall, across the campus on Park Avenue next to the botanical gardens, houses 114 women. The College Infirmary is on the first floor.

The building is named for S. Elizabeth Pope, former Dean of Women, a beloved friend of the college.

All the residences have reception rooms and laundry facilities.

THE GRADUATE SCHOOL

The Graduate School acts as a coordinating institution among the several departments engaged in graduate education at Bridgewater State College. The Dean and the Graduate Committee, together with administrators and faculty, work toward the continued development of quality programs which are designed to meet the academic and professional needs of graduate students. As of January 1, 1974, 1,443 students were enrolled in graduate programs leading to a master's degree.

The primary aim of the Graduate School is to produce graduates who are not only competent in their major field, but are also aware of their professional responsibilities. Another major goal is to foster research on the part of both faculty and students. Every graduate student is given the opportunity to engage in original investigation under the direction of a member of the faculty.

The Office of the Graduate School, which is located in Room 211 of the Conant Science Building, is open from 8:00 a.m. to 8:00 p.m., Monday through Thursday, and from 8:00 a.m. to 5:00 p.m. on Friday, throughout the year except for legal holidays. Evening hours (5:00 p.m. to 8:00 p.m.) will not be observed during the weeks that Continuing Education classes are not in session. Appointments with the Assistant to the Dean may be made by telephoning 697-8321, X301.

Graduate work is offered through the Division of Continuing Education and the Day Session. Persons interested in working towards a master's degree on either a full-time or part-time basis should obtain a current copy of the Graduate School Catalogue. This Catalogue is published in August of each year and may be obtained, together with appropriate application materials, at the Office of the Graduate School. Catalogues are bulk-mailed on a monthly basis to those who request them. Students are strongly advised to familiarize themselves with the general policies and procedures outlined in the Graduate School Catalogue prior to enrolling in courses carrying graduate credit.

GRADUATE DEGREE PROGRAMS

Master of Arts

Programs leading to the degree of Master of Arts are offered in the following areas:

- Biology
- Chemistry
- English
- History
- Humanities

Master of Arts in Teaching

Programs leading to the degree of Master of Arts in Teaching are offered in the following areas:

- Behavioral Sciences (anthropology, psychology, sociology)
- Biology
- Creative Arts (art, music, speech and theatre)
- Chemical Sciences
- Earth Sciences
- English
- Geography
- History
- Humanities (English, philosophy, modern foreign languages)
- Mathematics

Modern Foreign Languages
Physical Sciences
Physics
Social Sciences (economics, history, political science)
Speech and Theatre

Master of Education

Programs leading to the degree of Master of Education are offered in the following areas:

Elementary Education
Elementary School Mathematics
Guidance
Health Education
Instructional Media
Reading
School Administration
School Librarianship
Special Education
Special Education — Learning Disabilities

Master of Science

A program leading to the degree of Master of Science is offered in the following area:

Physical Education

DIVISION OF CONTINUING EDUCATION

The Division of Continuing Education offers undergraduate and graduate courses in the late afternoon and evenings. Undergraduate courses are open to all students who hold a high school diploma or the equivalent and meet the individual course prerequisites.

Students may attend part time or full time. In general, full time students may carry no more than fifteen semester hours at the undergraduate level or twelve semester hours at the graduate level. Persons working full time should enroll in no more than two courses per semester.

The Division offers courses in all the academic departments of the college during the fall, spring, and summer terms. It is possible to complete all degree requirements in most areas in the evening program. Certain undergraduate majors, such as anthropology, psychology, and sociology, are limited in the number of evening courses offered and it is sometimes necessary for students to spend part of their time in the day college in order to complete the necessary undergraduate degree requirements. Arrangements for these courses may be made through the student's advisor.

Information concerning acceptance into undergraduate degree programs should be obtained from the Admissions Office and for graduate programs from the Graduate Office. Once admitted, the student is assigned an advisor who helps the student plan his program. Students should work closely with their advisor to insure that all courses taken are appropriate to their degree program. Degree requirements and course descriptions are available in the appropriate catalogues.

Persons may take courses through the Division on a non-matriculated basis. Such persons should obtain a copy of the brochure and registration forms from the Division Office and register as indicated in the brochure.

Further information and assistance may be obtained in the Division Office by calling 697-6141. The Office, located in the Maxwell Library, is open Monday through Thursday from 8 a.m. to 10 p.m., Friday 8 a.m. to 5 p.m., and Saturday, 9 a.m. to 1 p.m., while classes are in session and from 8 a.m. to 5 p.m. when classes are not in session.

TUITION AND FEES FOR PROGRAM OF CONTINUING EDUCATION

Tuition for Residents of Massachusetts

1. \$22.00 a semester hour
2. \$15.00 a semester hour - audit

Tuition for on-Residents of Massachusetts

1. \$29.00 a semester hour
2. \$15.00 a semester hour - audit

Fees (per semester)

\$10.00	Registration Fee
\$ 5.00	Library Fee
\$ 5.00	Student Union Building Fee
\$ 5.00-10.00	Laboratory Fee (where appropriate)
\$ 2.00	Late Registration Fee
\$ 2.00	Change of Registration Fee

ADMISSIONS

The basic aim of admissions requirements is to assure the selection of students who have demonstrated the ability and promise necessary for success in college studies.

Freshman Admissions

Each candidate is considered on the basis of the following requisites:

A. Secondary School Preparation. Candidates for admission must have a high school diploma from an accredited secondary school or the equivalent preparation. Degree candidates desiring a major in Mathematics must present three units in college preparatory mathematics. An official transcript of the candidate's secondary school academic record, including the grades of the first marking period or the first quarter of the candidate's senior year, must be filed by the high school.

B. College Entrance Examination Board. All candidates must supply the following information:

1. The College Entrance Examination Board's Student Descriptive Questionnaire (SDQ).
2. The results of the Scholastic Aptitude Test (preferably by January).

C. Personal Qualifications. Confidential data concerning the candidate, including the recommendation of the high school principal and comments by teachers and counselors are given consideration in determining the fitness of the candidate for the proposed program of study.

Dates of Admissions

Bridgewater State College has a "rolling admissions" policy. There is no one date on which the College notifies all applicants simultaneously of their acceptance. Candidates are notified on a continuing basis over a period of several months, beginning about January 15.

If the number of qualified applicants exceeds the number that the facilities of the College will accommodate, a waiting list is established.

Those candidates who have not met the requirements for admission by March 15 may jeopardize their chances of receiving consideration for acceptance since the College may close freshman admissions at this time.

Transfer Admissions

A. Transfer candidates will be evaluated for admission on the basis of their previous college academic record and must supply transcripts of that record.

All applications must be filed by December 1 for January admission, and by April 1 for September admission.

B. Whenever possible, degree credit will be granted for course work completed at other institutions of higher education. Courses which do not fit the degree program may be counted as fulfilling the free elective requirements of the four-year

ADMISSIONS

curriculum. The transfer student will be required to fulfill the same degree requirements as any other student.

C. Honors courses, programs of independent study, Advanced Placement and College Level Examination Program (CLEP) and advanced standing credit earned at other institutions of higher education will be accepted at Bridgewater.

D. Ordinarily a student is expected to complete a minimum of two academic years (i.e. one half) of his work at the College, and in no case will the College grant its baccalaureate degree with less than one full year of academic work taken at Bridgewater State College.

E. The number of transfers accepted by Bridgewater will be determined by existing vacancies in the various degree programs and the number of applicants determined eligible under the above guidelines. Among qualified and eligible transfer applicants, priority in admissions will be given to transfer students in good standing from within Massachusetts public higher education.

Commonwealth Transfer Compact

Throughout higher education in the Commonwealth, an associate degree from any two-year college signatory to the Commonwealth Transfer Compact is honored as a unit and is construed as: (1) completion of at least 60 hours of work toward a baccalaureate degree, and (2) completion of at least 33 hours toward fulfillment of the General Education Requirements for the baccalaureate degree.

Bridgewater State College honors this policy and adheres to the following:

1. Definition of an associate degree transferable as a unit* toward a baccalaureate degree as the equivalent of 60 hours of undergraduate college level study, including:
 - a. 6 hours of English/communication
 - b. 9 hours of behavioral/social sciences
 - c. 9 hours of humanities/fine arts
 - d. 9 hours of mathematics/sciences
 - e. the remaining credit to be on the college level.
2. The awarding, upon acceptance, of the full number of credits earned while enrolled in the associate degree program.

Readmission

Applications for readmission must be filed by June 1 for first semester readmission and December 1 for second semester readmission. Students who withdrew for low scholarship must arrange an interview with the Director of Admissions.

The College reserves the right to change admissions requirements at any time without advanced notice.

*Contingent upon acceptance for admission

Health

All candidates, regardless of the intended area of study, are required to have a health examination before entrance. Information concerning such examinations is forwarded to prospective students after notification of acceptance. The candidate, if a teacher-training program is the intended area of study, must be in good physical and mental health, free from any disease, infirmity, or other defect, which would render the candidate unfit for public school teaching.

Advanced Standing

Advanced standing with college credit and reduction of distributions of the College requirements is granted to entering students who have demonstrated college-level proficiency through established procedures.

The College Entrance Examination Board offers the Advanced Placement Program, through which secondary schools deliberately prepare able, interested students for advanced work at college in the following disciplines: American history, art, biology, chemistry, English, European history, French, German, Latin, mathematics, music, physics, and Spanish.

CLEP (College-Level Examination Program)

Bridgewater State College encourages able students to seek advanced standing through one or more of the CLEP examinations described below.

There are two types of CLEP (College-Level Examination Program) examinations; the General Examinations and the Subject Examinations. Both measure factual knowledge and understanding, as well as the ability to see relationships and apply basic principles to new problems. The examinations are not based on courses given at Bridgewater State College but on typical courses in a variety of colleges throughout the country.

GENERAL EXAMINATIONS. The College requires all students to complete some study in certain fields that are deemed important for everyone, regardless of special interests or occupational goals. Such required study is called "General Education". The CLEP General Examinations provide a way to show that you have acquired some general education; the equivalent of what is given in required freshman and sophomore courses at the college.

There are five General Examinations which can be applied toward the General Education Requirements at Bridgewater as follows:

General Examinations	Credit Allowed	Area or Course Equivalent
English Composition	3	English Composition I* (EN 101)
Mathematics	6	Mathematics-Natural Sciences (MA 105, 106 or 108)
Natural Sciences (Biology/Physical)	6	Mathematics-Natural Sciences (BI 102, PH 200)
Humanities (Fine Arts/Literature)	6	Humanities & Creative Arts (AR 110, EN 221)
Social Sciences-History	6	Social & Behavioral Sciences

*Bridgewater requires a supplementary essay to be taken at the College.

ADMISSIONS

SUBJECT EXAMINATIONS. The subject examinations now offered are comparable to the final or end-of-course examinations in particular undergraduate courses. A student who has completed one of these courses successfully in college can probably earn satisfactory scores on the corresponding CLEP Subject Examination. So can the person who has learned the subject in some other way, such as by independent study. Subject examinations are currently available in most areas of study offered at the freshman level of college.

Social Sciences:¹	Credit Allowed	Mathematics:¹	Credit Allowed
Afro-American History	3	College Algebra	3
American Government	3	College Algebra-	
American History	6	Trigonometry	3
General Psychology	3	Introductory Calculus	6
Introductory Economics	6	Statistics	3
Introductory Sociology	6	Trigonometry	3
Western Civilization	6		
Sciences:¹		Education:²	
Biology	6	Educational Psychology	3
General Chemistry	6	History of American Education	3
Geology	6	Human Growth & Development	3
		Tests and Measurements	3
Humanities:¹		Business:³	
American Literature	6	Computers and Data Processing	3
Analysis/Interpretation of Literature	6	Elementary Computer Pro- gramming-FORTRAN IV	3
English Literature	6	Introductory Accounting	6
English Composition*	6	Introductory Business Law	3
Freshman English*	6	Introduction to Business Management	3
Medical Technology:³		Introductory Marketing	3
Microbiology	3	Money and Banking	3

PROGRESS — Program for the Recruitment and Retention of Special Students

PROGRESS was established to help high school graduates who possess both the motivation and potential necessary to achieve a college degree, but who because they are members of a minority group or come from a background of poverty have not been properly prepared to undertake a regular freshman program.

The Scholastic Aptitude Test (SAT) should be taken even though no great emphasis will be placed on the scores when determining admission through PROGRESS. The high school performance of students applying through PROGRESS will be judged on the basis of identifiable achievement patterns over the high school experience rather than on class standing or rank.

Letters of recommendation from guidance counselors, teachers, and in some cases community leaders, are a great assistance in evaluating an applicant's ability to do college-level work.

*(Bridgewater requires a supplementary essay to be taken at the College)

¹Credits can be applied toward General Education Requirements, requirements for the Major, or toward electives.

²Credits can be applied toward electives or toward a minor in Secondary Education.

³Credits can be applied only toward electives.

Each student admitted through PROGRESS is assigned an academic adviser and will be encouraged to carry courses and course loads suitable to individual needs. Students must carry at least nine semester hours, but no more than 15 hours in the freshman year.

Tutorial services are available for all courses. The courses taken by PROGRESS students are the same as those taken by all students at Bridgewater. PROGRESS students must meet the same degree requirements for graduation as do all other students at the College.

Financial assistance is available through the Financial Aid Office. The amount of financial assistance each student will receive is dependent upon individual need as demonstrated in the standard financial aid application form (Parents Confidential Statement).

New England Regional Student Program

Bridgewater State College participates in a regional cooperative program administered by the New England Board of Higher Education. The program—the New England Regional Student Program—permits qualified New England residents to study with in-state tuition and admission privileges in certain programs at any of the state universities, state colleges, two-year colleges and technical institutes.

The program's purpose is to expand higher education opportunities for New England residents by making available on an equal basis those courses not commonly offered at every institution.

Information about the program can be obtained from the Bridgewater State College admissions office, from any guidance counselor, or from the New England Board of Higher Education, 20 Walnut Street, Wellesley, Mass. 02181.

Massachusetts State College Policy on Non-Discrimination

It is the policy of the Board of Trustees of the Massachusetts State Colleges that in matters of college admissions, the employment of professional and non-professional personnel, and all other personnel matters in the State Colleges, individuals will be evaluated on their merits without respect to their race, color, creed, national origin, age or sex, as prescribed in applicable federal and state law.

FINANCIAL INFORMATION

The following summary indicates as nearly as possible the regular expenses for which each student must plan in an annual budget.

Tuition for Residents of Massachusetts

1. \$300.00 a year payable in two installments at the beginning of each semester.
2. \$10.00 a semester hour—Courses for special students.

Tuition for Non-Residents of Massachusetts

1. \$600.00 a year payable in two installments at the beginning of each semester.
2. \$21.00 a semester hour—Courses for special students.

Initial Admission Registration Fee

Each applicant for admission to Bridgewater State College must pay a registration fee of \$50.00 following notification of acceptance of admission. This fee will be deducted from the tuition of students who attend and will be forfeited by those who do not attend.

Textbooks and Supplies

Students are expected to purchase all necessary textbooks and supplies at an approximate expense of \$150.00 a year.

Board and Room (In effect for 1973-1974)

Each applicant for a residence hall reservation must pay a deposit of \$50.00 following notification of acceptance to the college. This deposit will be deducted from the total residence hall fee of students who attend. It will be forfeited by those who do not enroll. Students who enroll for residence and then decide to commute will also forfeit their deposit.

Rates for residence hall accommodations range from \$350.00 to \$580.00 per year depending on the facility occupied by the student. The dining hall charge for the year is \$480.00 (including weekends). All students residing in College residence halls must subscribe to the College Dining Hall charges. Payments are required in two installments payable at the beginning of each semester. These charges, like all others, are subject to change at any time by the Board of Trustees. After one day of residence, semester room rents are non-refundable whether a student leaves the residence to commute or withdraws from the College.

Students who are assigned to residences will be required to pay a \$25.00 "Residence Hall Security Deposit." Damages specifically performed by an individual student or an identifiable group of students will be billed at the time of the assessment of damages. General and assessable damages will be prorated and paid for from the students' security deposit. Unused deposits shall be refunded to the students.

Required Annual Fees

\$10.00 Health Fee	\$5.00 per semester
\$10.00 Library Fee	\$5.00 per semester
\$ 2.50 Commencement Fee	Transfer students assessed retroactively
\$25.00 Student Government Association Fee	\$12.50 per semester
\$27.00 Athletic Fee	\$13.50 per semester
\$35.00 Student Union Building Fee	\$17.50 per semester

Other Required Fees

\$ 5.00—10.00 Laboratory Fee	Charged in all laboratory science courses and in a number of studio and practicum courses
\$12.00 Physical Education Facilities Fee	Required of all freshmen and transfer students
\$ 5.00 Placement Fee	Required of all seniors
\$10.00 Student Identification Card	Required of all freshmen and transfer students
\$ 5.00 Late Registration Fee	Assessed to students registering after the official registration periods

Unless stated otherwise, all fees are non-refundable and must be paid by all full-time students who are in attendance for all or part of the academic year.

Refund Policy for Official Withdrawal from the College**Tuition and Food Service:**

- 66 2/3% until the end of the first week of classes.
- 50% until the end of the second week of classes.
- 33 1/3% until the end of the third week of classes.
- After the third week of classes NO refund will be made.

No refund for room charge will be given **after one day of occupancy.**

Financial Aid

Bridgewater State College participates in several federally sponsored programs of financial aid. For students accepted for admission who show a proven financial need, funds are available in the National Direct Student Loan Program (N.D.S.L.) which allows the student to borrow money as an undergraduate or a graduate student. Repayment of the loan at 3% interest begins 9 months after graduation and may extend over a 10-year period. Special cancellation is allowed for students who go into the teaching profession in Special Education and teaching in low income communities.

For students who show an exceptional financial need, the Supplemental Economic Opportunity Grants (S.E.O.G.) program is available. Up to one-half of the total financial need may be awarded in a grant to the exceptionally needy student. These grants are renewable providing the student makes application each year and continues to show the same proven need.

FINANCIAL INFORMATION

A third program for needy students is the College-Work Study Program (E.O.P.). Students are assigned to various departments or agencies on and off campus and are paid an hourly rate, in accordance with campus policies and Federal regulations.

Bridgewater State College will also participate in the new Basic Opportunity Grant Program as provided in the Higher Education Acts of 1972. The implementation of this entitlement program is subject to guidelines that will be forthcoming from the Office of Education.

Particular attention should be given to the Massachusetts Board of Higher Education Scholarship. Students intending to apply for financial assistance at Bridgewater State College must as a pre-requisite for application, apply to the Massachusetts Board of Higher Education to enroll in their Scholarship Program. This Scholarship for Massachusetts residents requires both a Parents' Confidential Statement and a Massachusetts Board of Higher Education Scholarship Form. These forms can be obtained in High School Guidance Offices or from:

Board of Higher Education
Scholarship Office
182 Tremont Street
Boston, Massachusetts 02111

Opportunities also exist for student employment on campus not related to the Federally sponsored program of College-Work-Study. Applications for student employment in the College Bookstore, Library, Dining areas, Student Union, and Physical Education department can be obtained in the individual departments.

The Massachusetts Higher Education Loan Plan (H.E.L.P.) is another source of financial assistance for the education of students from middle or upper income families. A student may borrow up to \$1,000.00 a year, but not in excess of \$5,000.00 for an undergraduate program. In addition he may borrow \$1,500.00 a year for a graduate program, but not in excess of \$7,500.00 total for both undergraduate and graduate program. Students who wish to apply for H.E.L.P. loans should go directly to their local banks to obtain the necessary application forms. Inquiries regarding this program should be addressed to:

Massachusetts Higher Education Assistance Corporation
511 Statler Building
Boston, Massachusetts 02116

Since Bridgewater State College is a participating member of the College Scholarship Service of the College Entrance Examination Board, all loans, grants, and work-study awards are made on the basis of demonstrated financial need as determined by the need analysis system derived from information supplied in the Parent's Confidential Statement. All applicants may obtain the Parent's Confidential Statement through their high school guidance counselors, or from the Financial Aid Office. Parent's Confidential Statements should be mailed to College Scholarship Service, Box 176, Princeton, New Jersey, 08540 no later than March 15 preceding the academic year for which they have been accepted. Supplementary applications for financial aid should be requested by writing directly to the Financial Aid Officer, Bridgewater State College, Bridgewater, Massachusetts 02324.

Veterans with service credited to the Commonwealth are exempt from tuition payment at the College. To be eligible, veterans must have served more than 180 days in the U. S. Armed Forces after February 1, 1955.

Information on exemption certification may be obtained from the Veteran Affairs Officer in Boyden Hall.

STUDENT SERVICES

Students have problems and needs that often require special forms of help or personal guidance at different stages of their college experience. Among these are questions and concerns about one's educational program and academic achievement, housing, finances, health, social adjustment, part-time work, and post-college study or employment.

To assist students in making adjustments, wise decisions, and intelligent plans, the College has provided professional staff services in the major areas of student needs.

Orientation

During advanced registration the orientation of students new to Bridgewater State College begins. Students are then advised on their academic program and given opportunities to meet each other and the faculty. An orientation program for all freshman is offered during the early summer.

Discussion centers around the philosophy and resources, the standards, requirements, policies, and traditions of the College. The program includes assemblies, discussion meetings, activities of various kinds, and get-togethers in informal settings, planned and carried out by students, faculty, and administrative staff.

Housing

Six residence halls provide housing for approximately twelve hundred students—eight hundred women and four hundred men. Woodward Hall, Tillinghast Hall and Pope Hall for women students and Scott Hall for men are all located on the lower campus. Durgin Hall and a Women's Residence are located in the Great Hill area.

Applications for residence hall placement far exceed the openings available. Assignment to a residence hall is based on the total evaluation of the candidate including the distance from one's permanent place of residence, academic standing and acceptance of residence hall policy.

Requests for residence hall space for incoming students, either freshmen or transfer students, are made directly to the Admissions Office. Commuting students who wish to apply for residence hall space should apply to the Division of Student Services. Students who are on a waiting list for space in a College residence hall are not guaranteed living accommodations within any specified time.

Although the College does not have housing facilities for married couples, marital status as such is, of course, not a factor in the assignment of a room in a residence to any individual student.

The College maintains no off-campus housing program. Single students who do not live in their own family homes or in college residence halls should register their address with the Office of Student Services. All students under eighteen must present a statement from their parents or guardian absolving the College from all responsibilities concerning this type of housing.

General Counseling

The faculty-student relationship is the center of college counseling, for it is the faculty who are best qualified to guide the student in his academic and professional growth. Each freshman is assigned a faculty adviser. Additional guidance by a

STUDENT SERVICES

professional counselor may be arranged either through the Office of Student Services or through the Counseling Psychologist. For advice with regard to health matters, students may confer with the members of the College Health Service staff. If psychiatric assistance is needed, appropriate arrangements may be made to secure such help.

Academic Counseling

An Academic Advisement and Information Center, located in Boyden Hall, is available to assist students in planning their academic programs, in choosing their major or in securing academic counseling in specific problems. Since the College places the primary responsibility for his educational progress on the student, it seeks to provide him with many sources of professional assistance. Faculty counselors, departmental advisors and the college professional counselors are available to students with academic problems. This service recognizes the difficulty students may encounter in adjusting to the pace of learning in college with its different type of assignments and demands. It wishes to provide an opportunity for the student who is seeking to address his problems to know more about himself, his aptitudes and special interests, while at the same time obtaining professional assistance.

College Reading Laboratory

The College Reading Laboratory at Bridgewater State College conducts courses in the technical skills needed to complete college-level reading and studying tasks efficiently and effectively.

Full-time undergraduate and graduate students may utilize the services of the Laboratory for the development of their own skills through personally prescribed independent study programs.

Opportunity is also provided for guidance and direction in carrying out independent research projects in the areas of reading and study skills.

No academic credit is given for work carried out in the College Reading Laboratory.

Registration and information regarding the services offered may be obtained by contacting Dr. Peter A. Bizinkauskas, Director, College Reading Laboratory, Maxwell Library.

Veterans Affairs

This office offers services in the areas of general information on the current G.I. bill, counseling, educational guidance and assistance in job opportunities. It provides direct contact between the veteran and the Veterans Administration Regional Office in Boston or Providence.

Those students eligible for educational benefits are:

Veterans of post-Korean conflict period and Vietnam era and service men who were released after January 31, 1955 and who fulfilled all the necessary requirements of the G. I. Bill.

Orphans, wives, and widows of veterans whose death or permanent total disabilities were service connected.

Wives and children of service men missing in action or prisoners of war, for more than 90 days.

For further information, contact Mr. Edward G. Elias, Veterans Affairs Officer, Boyden Hall.

Social and Cultural Events

A wide variety of activities is sponsored by college and student organizations to meet the many different needs and interests of the college community. Through formal and informal activities, plays, recitals, exhibits, concerts, dances, forums, speakers and off-campus trips, opportunities for enrichment are ever present. Such activities help students develop understandings and skills that enrich and extend classroom learnings and form an integral part of the college program.

Athletics

The physical education departments provide a wide range of intercollegiate, intramural and recreational activities for men and women. The objectives of the programs are to promote qualities of leadership and sportsmanship; enhance emotional and social development; and provide opportunities for the development of physical skills.

Intercollegiate athletics play an important part of life on the College campus. They provide for a high level of competition with other colleges in the eastern part of the United States. Intercollegiate sports for men include: baseball, basketball, cross country, football, golf, ice hockey, swimming, tennis, track, club tennis and volleyball. The College is a member of the National Collegiate Athletic Association, the National Association of Intercollegiate Athletics, the Massachusetts State College Athletic Conference, the Eastern College Athletic Conference and the National, Eastern and Massachusetts Associations for Intercollegiate Athletics for Women.

Recreation Programs

The intramural program provides competitive experiences in a variety of team and individual sports and includes modern dance, swimming, and gymnastic clubs.

The recreation program provides many opportunities for social involvement. Some of the highlights of the program include mountain climbing, camping, biking and skiing trips as well as many seasonal activities.

Health Services

A hospital suite is located on the first floor of Pope Hall. The services of a nurse are available to all students of the college twenty-four hours each day, seven days a week. A doctor is on duty three days a week for four hours each day.

Insurance

The College does not carry insurance which will compensate students or their families for losses suffered on campus because of fire, theft, water damage, etc.

It is advisable to check the extent of current home insurance or to seek coverage through a special policy.

Students interested in group health coverage are offered a chance to subscribe during registration. Information on insurance is available at the Office of Student Services.

Placement Service

The Placement Service assists in referring seniors to employers for full-time job opportunities, and in placing alumni in their major fields of concentration. In

STUDENT SERVICES

addition, on-campus interviews are arranged for students in their senior year. These services are available without charge to all students and alumni who register at the Placement Office in the Division of Student Services. Students seeking teaching positions should contact the Teacher Preparation Office.

Student Employment

Opportunities for part-time employment are available for students who wish to earn money while studying at the college. Information about jobs may be procured from the Division of Student Services.

Religious Groups

In the neighborhood of the campus there are available various religious groups and churches, Catholic, Protestant, and Jewish, with which interested students may affiliate. A listing of these can be obtained in the Office of Student Services.

STUDENT LIFE POLICIES

A student is admitted to Bridgewater State College in the expectation that he will accept and abide by the high standards of conduct and scholarship established by the faculty, administration and student governing boards. The College reserves the right to require any student to withdraw who does not maintain acceptable academic standing. The College also reserves the right to dismiss with due process a student who does not meet the requirements of conduct and order, or whose behavior is inconsistent with the standards of the College.

Attendance Policy

First semester freshmen are allowed no unexcused absences. Other students are expected to use judgment and discretion in regard to class attendance.

Alcoholic Beverage Policies

Bridgewater State College abides by the laws of the Commonwealth in regard to the sale, consumption, transportation, and possession of alcoholic beverages on the campus. Additional information regarding specific policies may be found in the Student Handbook.

Drug Policies

The use or possession of illegal drugs on the campus is sufficient reason for expulsion from the College.

Dress Policy

Although there are no regulations as such concerning the dress of students at Bridgewater, students are expected to use good judgment in deciding what is appropriate for different activities. An attractive appearance with a neat and clean standard of dress is expected of all students at all times. Good sense should indicate where sports and work clothes should be worn and when more formal attire is appropriate.

In compliance with health and safety laws of the Commonwealth of Massachusetts it is required of all students to wear shoes in all campus buildings.

Traffic and Parking Policies

Freshman and Sophomore students living in Residence Halls are not allowed to have a motor vehicle on campus.

Appropriate parking areas on campus have been assigned to faculty, staff and students. During Fall Registration, decals and copies of Traffic Control Policies will be distributed designating these areas as well as explaining the traffic regulations set forth by the Traffic Control Committee.

A decal does not guarantee a parking space. Parking is on a "first come—first served" basis in an assigned area.

Disciplinary Suspension Procedures

The Deans of the College review all charges and pertinent information concerning the particular case. This information may be submitted by student officers or other members of the College community. Based on this data a recommendation for suspension is presented to the President of the College for his appropriate action or non-action. The President then reviews the case, forms an independent judgment on the basis of all the facts available, and makes his final decision.

Recommendations for suspension are usually made in cases of students already on a disciplinary probation status or after behavior which has seriously threatened the safety and security of other students. In all other cases of misconduct students are placed on disciplinary probation and their parents are notified. If the reasons for dismissal are not heinously offensive, students are permitted to withdraw voluntarily from the College.



ACADEMIC POLICIES

The regular academic year consists of two semesters of sixteen weeks each. Curricula leading to baccalaureate degrees are so planned that a student pursuing a normal program will ordinarily be able to complete the requirements for graduation in four years or eight semesters.

Graduation Requirements

Degrees will be awarded to candidates who have fulfilled the following:

- 1) A MINIMUM of 120 semester hours of credit, distributed according to requirements of either the Bachelor of Arts or the Bachelor of Science curriculum;
- 2) ANY ADDITIONAL semester hours of credit required for the major program in which the candidate has matriculated;
- 3) completion of at least 30 credit hours at Bridgewater;
- 4) a cumulative grade point average of 2.0;
- 5) clearance of all financial debts to the College.

No student's name may appear on the graduation list unless the number of credits, including those completed successfully in the last semester, are sufficient to meet the minimum requirements for graduation.

Participation in graduation ceremonies is limited to those students who have met all graduation requirements. Students who have not met these requirements will be given the opportunity to participate in a subsequent ceremony.

Degree Applications

All students who expect to receive their degree from Bridgewater State College are required to complete a formal degree application. These applications are available in the Office of the Registrar.

Degree Application cards, signed by the Chairman of your major department, must be returned to the Office of the Registrar by:

November 1	for February graduation
December 2	for May graduation
April 1	for August graduation

Grading System

The college uses the letter-grade system of marking to indicate the student's relative performance; A—Superior; B—Good; C—Satisfactory; D—Poor; E—Failure; WP—Withdrawn Passing; WF—Withdrawn Failing. In computing averages, grades are assigned the following numerical values: A—4; B—3; C—2; D—1; E—0. Promotional averages are annually cumulative: for freshmen to advance to sophomore status, an average of 1.5 is required; to advance to junior status, an average of 1.75; to advance to senior status and to be eligible for graduation, a cumulative average of 2.0 is required.

An incomplete shall be given only when a student has missed the final examination for good reason or has not completed a major assignment which can be finished within a short time. Incompletes must be made up no later than the fourth week of the regular academic semester following that in which the Incomplete was recorded. A grade of "E" will automatically be entered on the transcription of any student who fails to meet this requirement.

ACADEMIC POLICIES

Dean's List

The Dean's List is published at the termination of each academic year to honor academic achievement. A 3.3 average is required.

Graduation With Honors

Academic excellence for the baccalaureate program is recognized by inscribing the degree *summa cum laude* (cumulative average of 3.8), *magna cum laude* (3.6), or *cum laude* (3.3). The cumulative QPA for Honors is based on all college work attempted.

Graduation with Departmental Honors is recognized by inscribing on the diploma the phrase "With Honors in (the appropriate field)."

Credit by Examination

The College encourages qualified students to meet certain graduation requirements through "Credit by Examination." Currently, the College will award credit for successful completion of the College Level Examination Program's (CLEP) general or subject area examinations. In addition, certain departments offer their own examinations for which credit can be awarded. Additional information can be obtained from the Office of the Academic Dean.

Student Loads

Freshmen are expected to carry 15 credit hours each semester in those areas which are outlined by their declared major. A lighter load may be carried under special circumstances and then only with written permission from the Dean of Undergraduate Studies. Students on probation are limited to a maximum of 15 semester hours.

Full-time upperclassmen must carry a class load of 12 to 18 semester hours, including evening courses as well as day courses. Permission to carry more than 18 hours can be granted by the Dean of Undergraduate Studies.

Students may not carry additional courses during the Quarter in which Student Teaching is done.

Change of Major

Students may change majors at any time by obtaining a "change of major card" from the Office of The Registrar, securing the signatures of the department chairmen involved, and filing the completed card with the Registrar.

While admission to most majors is generally unrestricted, waiting lists for certain majors are established. In addition to the procedures above, students wishing to enter these majors must obtain the signature of the Dean of Undergraduate Studies prior to being placed on the waiting list. Once an opening becomes available, the student will be notified in writing by the Dean and must meet with the new department chairman to obtain a change of program.

Special Students

The term special student refers to students who have been given permission to take a part-time load (less than 12 semester hours).

Transfer of Credit After Admission

In order to receive credit for courses taken through the Division of Continuing Education or at any other institution, approval must be obtained in advance from the appropriate department chairman and the Dean of Undergraduate Studies.

Application forms are available in the Office of the Registrar. Applications for approval of a course from another institution should be accompanied by the appropriate catalogue from that institution. Transcripts of these approved courses must be submitted to the Registrar's Office within 6 weeks after completion of the course. This transfer of grades is not done automatically. It is the student's responsibility to have grades sent to the Registrar's Office.

Withdrawal from Courses

During the first three weeks of a semester or the first eight class days of a quarter students may withdraw from courses and no grade will be recorded.

If, for some serious reason, a student wishes to withdraw from courses after this official period, written permission must be secured (on forms provided by the Office of the Registrar) from the Dean of Undergraduate Studies. Only if such a form is filed in the Registrar's Office and the second copy returned to the head of the department in which the student is majoring may the grade of WP or WF be recorded. In all other instances a grade of "E" shall be given.

Warning, Probation, Dismissal

Warning notices are given at mid-semester to all freshmen and sophomore students who fail to maintain a "C" average in any course.

At the end of each semester, all students whose averages fall below the required minimum standard are subject to dismissal. Those students with a reasonable chance of raising their total average to the acceptable level within one semester may be placed on probation, on the recommendation of the Faculty Committee on Academic Standing and by approval of the Academic Dean.

Withdrawal from the College

Official withdrawal forms may be obtained from the Office of the Registrar and must be signed by the Dean of Undergraduate Studies. Should the student leave the College without giving official notification, failing grades will be recorded for all courses.

Students who withdraw from the College in good academic standing may re-enter later by applying for readmission through the Office of Admissions.

Students who withdraw due to low scholarship may not take courses in either the Day Session or the Division of Continuing Education for at least one year, not including the Summer Session. It is highly recommended that such students give evidence of a year's academic work at another institution of higher learning, upon reapplying at the College.

If readmitted, the student is placed on academic probation and must achieve a minimum Q.P.A. of 2.00 in order to continue.

Plagiarism

Academic honesty is expected of all students. Plagiarism and cheating are not condoned and are subject to an academic penalty, which may be failure for the course in which the violation took place. A record of the violation is kept and repeated offenses may result in suspension or dismissal from the College.

Standards for Representing the College

In order to represent the undergraduate College in intercollegiate competition, or as a member of the student government, a student must:

Be in good academic standing.

Be a full-time student, which is defined as carrying a minimum of 12 semester hours of credit.

Not have completed his undergraduate degree requirements.

Have completed not more than eight full semesters in the day session. Such eight full semesters in the case of a transfer student include the number of semesters' work granted in transfer credit.

ACADEMIC PROGRAMS

Bachelor of Arts/Bachelor of Science

The Bachelor of Arts and Bachelor of Science degrees allow students to select from seventeen areas, and provide preparation for secondary school teaching (if secondary education is elected as a minor), graduate school, and fields of endeavor related to the major area of study. Majors are currently offered in:

HUMANITIES AND CREATIVE ARTS: Art, English, French, Spanish, Speech and Theatre;

SOCIAL AND BEHAVIORAL SCIENCES: Anthropology, History, Political Science, Psychology, Sociology;

NATURAL SCIENCES AND MATHEMATICS: Biology, Chemistry, Chemistry-Geology, Earth Science, Geography, Mathematics, Physics

Except for those students in the Humanities and Creative Arts who are necessarily candidates for the Bachelor of Arts degree, or those students majoring in a) Elementary Education b) Special Education c) Health & Physical Education who necessarily are candidates for the Bachelor of Science in Education degree, a student may decide, after having chosen a major, whether he wishes to earn a Bachelor of Arts or a Bachelor of Science degree by his selection of free electives. A free elective is any elective which is not used to meet the General Education Requirements.

Thus, the Bachelor of Science degree is awarded to those who choose the majority of their free electives in the Social and Behavioral Sciences or Natural Sciences and Mathematics, while the Bachelor of Arts degree is awarded to those who choose the majority of their free electives in the Humanities or Creative Arts.

Students are advised to consult with their Department Chairman or major advisor early in their academic career, but no later than the end of the sophomore year, in order to be certain that course selection will allow graduation with the desired degree.

Bachelor of Science in Education

The Bachelor of Science in Education prepares students for teaching in the elementary schools, for teaching Health and Physical Education at all levels, and for teaching in the area of Special Education.

Majors are currently offered in:

Elementary Education

Special Education

Health & Physical Education

MAJOR REQUIREMENTS

Each student must complete not less than 24 and not more than 36 credits in one of the major fields of concentration. The 24 and 36 credits reflect all courses taken in the major department, including those which are listed under the distribution of General Education Requirements. The student must select a major by the end of the sophomore year.

Minor

Students may elect a minor, consisting of a minimum of 18 credits, from most departments at the College.

Most departments allow students a wide range of choices in courses when doing work on a minor. Specific requirements for a minor are found under the departmental descriptions.

Independent Study

The college encourages students to pursue certain of their interests through directed study. Such an undertaking involves independent thinking, hard work, and creativity along with the guidance and help of a faculty member. The end result should be a paper or project accepted by the faculty member working with the student. Departmental Independent Study is available for the pursuit of such projects requiring independent work for a maximum of six credits. Application for an independent study project, including an outline of the proposed project and the name of the faculty sponsor with whom you plan to work, should be submitted to the department chairman prior to advanced registration.

Honors Program

The general aim of the Honors Program is to encourage students to do more intensive, independent, and creative work. More specifically, its aims are: to encourage superior and interested students to achieve their fullest intellectual potential through critical thinking, scholarship, and research; to help these students improve their skills in oral and written expression; to present an opportunity for frequent and close association of able students for intellectual exchange among themselves and with faculty members and other scholars; and to create an atmosphere which fosters intellectual, artistic, and academic achievement.

The following departments are at present participating in the Honors Program: Biology, Chemistry, Elementary Education, English, History, Modern Foreign Language, Mathematics, Speech and Theatre, and Health and Physical Education.

Students who are interested should consult the Chairman of the Honors Program Committee in their department or members of the College Honors Committee.

Interdepartmental Programs

The College offers a number of interdepartmental programs, providing majors, minors and pre-professional programs. See page 141 for detailed information on these programs.

General Education Requirements

The College requires that all students complete certain General Education Requirements in addition to courses in their major field of study. These requirements are distributed throughout the various academic departments so that students will study a variety of disciplines during their college career.

The majority of these requirements are generally satisfied during the first two years at the College, and the number of credits required to meet the General Education Requirements varies according to the degree sought.

GENERAL EDUCATION REQUIREMENTS

BACHELOR OF ARTS/BACHELOR OF SCIENCE

Humanities and Creative Arts **30 credits**

A. English Composition	EN 101 & 102	6
B. Literature		3
C. Philosophy	PL 200, 210, 220, 230	3
D. Creative Arts	Art or Music (except MU 150)	3
E. Creative Arts and Humanities Electives		
(including up to 12 credits in foreign languages)		15

Social and Behavioral Sciences **18-19 credits**

Behavioral Sciences		
Psychology	PY-200	}
Anthropology	AN-201, 202, 205, 210	
Sociology	SO-202	
Social Sciences		
History	HI-111 & 112	6
U. S. History		}
Political Science		
Economics		
Geography	ES-261, 262	6
Massachusetts & United States Constitutions*		1

Natural Sciences and Mathematics **15 credits**

A. Laboratory Science — a one-year sequence		
	BI 101-102; 103-104; 105-106; 107-108; CH 131-132; ES 181-182 or 192; PH 181-182; CH 200-PH 200	6
B. Mathematics		3
C. Mathematics and/or Science Electives		6

Non-Credit Requirement

A. Library Orientation	
(Freshmen)	LI 102

*Massachusetts state law requires all students to take a course in the federal and state constitutions. Students may fulfill this requirement by electing HI 221 (U.S. History to 1865). Those who do not elect HI 221 must take PO 273.

ACADEMIC PROGRAMS

BACHELOR OF SCIENCE IN EDUCATION — HEALTH AND PHYSICAL EDUCATION MAJOR

Humanities and Creative Arts		18 credits
A. English Composition	EN 101 & 102	6
B. Literature		3
C. Philosophy	PL 200, 210, 220, 230	3
D. Oral Communication	ST 200	3
E. Art or Music		3
Social and Behavioral Sciences		18 credits
A. History	HI 221	3
B. Psychology	PY 200 and either PY 224 or 226	6
C. Anthropology, Economics, Geography, History, Political Science, Sociology		9
Natural Sciences and Mathematics		12 credits
A. Mathematics	MA 110	3
B. Biology	BI 102, BI 385	6
C. Biology, Chemistry, Earth Science, Mathematics, Physics		3
Non-Credit Requirement		
A. Library Orientation (Freshmen)	LI 102	

Professional Education

Professional Education courses and other requirements are outlined under Department of Health and Physical Education.

**BACHELOR OF SCIENCE IN EDUCATION —
SPECIAL EDUCATION MAJOR**

Humanities and Creative Arts **24 credits**

A. English	EN 101 & 102	6
B. Literature	World, English or American	3
C. Speech & Theatre	ST 200	3
D. Art	AR 110, 310	6
E. Music	MU 150	3
F. Philosophy	PL 200, 210, 220, 230	3

Social and Behavioral Sciences **21 credits**

A. History	HI 111, 112 & 221	9
B. Psychology	PY 200, 224, 228	9
C. Sociology	SO 202	3

Natural Sciences and Mathematics **18 credits**

A. Mathematics	MA 107 & 108	6
B. Biology	BI 101-102; 103-104; 105-106; 107-108	6
C. Electives	CH 200; PH 200; ES 200	6

Non-Credit Requirement

A. Library Orientation (Freshmen)	LI 102
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Professional Education

Professional education courses and other requirements are outlined under Department of Educational Services.

**BACHELOR OF SCIENCE IN EDUCATION —
ELEMENTARY EDUCATION MAJOR**

Humanities and Creative Arts		21 credits
A. English Composition	EN 101 & 102	6
B. Literature	World, English or American	3
C. Speech & Theatre	ST 200	3
D. Art	AR 110	3
E. Music	MU 150	3
F. Philosophy	PL 200, 210, 220, 230	3
Social and Behavioral Sciences		21 credits
A. History	HI 111, 112 & HI 221	9
B. Psychology	PY 200, 224	6
C. Electives	HI 222, SO 202, EC 200, AN 201	6
Natural Sciences and Mathematics		21 credits
A. Mathematics	MA 107 & 108	6
B. Biology	BI 101-102; 103-104; 105-106; 107-108	6
C. Chemistry	CH 200	3
D. Physics	PH 200	3
E. Earth Science	ES 200	3
Non-Credit Requirement		
A. Library Orientation (Freshmen)	LI 102	

Professional Education

Professional education courses and other requirements are outlined under Department of Elementary Education.

DEPARTMENTAL COURSE OFFERINGS

The following section contains the courses offered by the Academic Departments of Bridgewater State College.

Course Numbering System

100—299 Introductory courses or courses normally taken in the freshman and sophomore years

300—399 Courses normally taken in the junior or senior years

400—499 Courses normally taken only by seniors

Usually courses offered in the fall semester are odd-numbered; those offered in the spring semester are even numbered. Courses offered both semesters usually end in zero.

Prerequisites

Students should make certain that they have the necessary prerequisites for each course. Failure to do so may result in being inadequately prepared to take the course, and may result in the loss of any credit earned in the course. Prerequisites are given after the abbreviation Prq.

Unless specified otherwise, courses meet for three 50-minute periods or two 75-minute periods per week for one semester, and count for three credits. Departures from this rule, such as laboratory and studio periods and quarter courses, are indicated in the course descriptions.



DIVISION OF BEHAVIORAL SCIENCES

DIRECTOR: PROFESSOR BROWN

Anthropology

Psychology

Sociology

Programs of study within the Division of Behavioral Sciences are provided by the Departments of Anthropology, Psychology, and Sociology. A major in one of the aforementioned departments requires from 24 to 30 semester hours of study. A Minor requires a minimum of eighteen semester hours of study.

Students within the Division receive intensive instruction in the scientific study of cultures, personality, individual and group behavior, and research techniques useful in anthropological, psychological, and sociological study.

Graduates of the Division of Behavioral Sciences find employment in social work and community service agencies, psychological clinics, and related settings in urban areas. Some pursue graduate and professional training. Others engage in secondary school teaching.

DEPARTMENT OF ANTHROPOLOGY

Professor George Horner, Acting Chairman

Assistant Professors: James Mueller, Reed Stewart

A Major in Anthropology provides students with an understanding of societies and cultures throughout the world. Specifically: 1) A Major prepares students for teaching careers in either elementary or secondary schools and/or college teaching or research. 2) It prepares students for careers in industry. 3) It offers a general background to students who are interested in jobs with state or federal agencies. 4) It provides a background for students to become educated, well-informed adults. Majors are encouraged to continue study for advanced degrees (M.A. or Ph.D) because those individuals are more likely to be selected for positions in the field.

Within the field of Anthropology, majors can concentrate in Archaeology, Physical Anthropology or Cultural Anthropology.

Anthropology Major

AN-201, plus a minimum of seven other Anthropology courses.

MA-110 or 190

A one-year sequence of foreign language study at the intermediate level, or its equivalent.

Anthropology Minor

AN-201, plus five other Anthropology courses

Anthropology Concentration

Three courses from the following:

AN-201, AN-202, AN-210, AN-404

AN 201 General Anthropology

3 crs.

Origin of man. Physical evolution of man. Divisions of anthropology, cultural history and development. Basic concepts and methods of analyzing cultures.

AN 202 Studies in Selected Cultures

3 crs.

Science of human behavior in different cultural contexts. Man's biological and cultural variability; human societies of the present and recent past around the world; dynamics of cultural change.

AN 205 Culture Change

3 crs.

Prq.: AN 201 or AN 202.

Use of the inductive approach to examine the effect of culture on individuals and groups. Discussion and study of applied anthropological techniques used in planned programs to assist in adopting social change.

AN 207 Primitive Religion

3 crs.

The origins and development of religion in society; myth, ritual, magic, and religious specialists. Australian, African, and American Indian.

AN 208 Religion in the Cultures of Asia

3 crs.

A survey of the beliefs and practices of Hinduism, Buddhism, and Islam, as related to their societal and cultural backgrounds. Attention will be given to aboriginal religions of the South Pacific and to the ancient religions of China and Japan, Taoism, Confucianism, and Shinto. The "great tradition" of philosophy will be compared to the "folk tradition" and actual practice of each religion in Asia today. Alternate years.

AN 210 Introduction to Folklore 3 crs.

The meaning and subdivisions of folklore: myth, folk tale, proverb, riddles. Analyses of story elements and major folklore areas.

AN 301 Introduction to Physical Anthropology 3 crs.

Prq.: AN 201 or 1 yr. or natural science.

An introduction to the principles of Physical Anthropology as it relates to human evolution. Examinations of present evidence, in an attempt to discover the origin of man. Such aspects of progress in homeostasis, primate radiation, body structure and posture, feeding ecology and behavior, evolution of the head, and reproduction.

AN 302 Introduction to Archaeology 3 crs.

Examination of field methods, systems of data recording, analytical methods, and their conceptual basis. Abstract theory closely integrated with specific case material. Laboratory exercises in application of artifact analysis.

AN 304 Personality and Culture 3 crs.

A study of the interrelationships between individual and society, focusing on 1) major theories about the formulation of personality by the surrounding structures, including Freudian theory and the Marxist concept of alienation; 2) a cross-cultural study of childhood; 3) adolescence in changing America; 4) several conceptions about the contemporary American Personality as compared with personality structures in traditional society.

AN 306 Indians of North America 3 crs.

A study of tribal cultures representative of most of the cultures areas Mexico, Canada, and the United States. Emphasis will be placed on the current state of Indians and on governmental policies and attitudes.

AN 307 Seminar: Urban Cultural Dynamics 3 crs.

Prq.: Consent of the Instructor.

A study of poverty, urban renewal, and the experience of the ghetto, crime, family disintegration, problems of housing and transportation, and proposed solutions to the crisis of the inner city. Wherever possible emphasis will be upon Boston.

AN 310 Peoples and Cultures of Africa South of the Sahara 3 crs.

A survey of present cultures of tropical and subtropical Africa, problems of colonialism, acculturation, new nationalism, and rapid social change.

AN 321 Comparative Social Structures 3 crs.

Prq.: AN 201

A comparison of social structures of selected non-western societies. Stress is placed upon the meaning of society, structure, and methods of comparison.

AN 323 Seminar: Anthropological Theory 3 crs.

Prq.: Consent of the Instructor.

A survey of early schools of cultural theory including Adolf Bastian, Lewis Morgan, Edward B. Tylor, the British Diffusionists, the German Historical-Diffusionist School, French Sociology, Functionalism, including Franz Boas and Malinowski. Current functional evolutionary theory.

AN 327 Seminar: Urban Centers in East and West Africa 3 crs.

Major African cities and the culture of their hinterland focusing on cities like Nairobi, Kampala, Kairo, Kumase, and Moarovia, and the role these cities play in shaping the lives of people in the surrounding territories. Alternate years.

AN 328 Archeology of North America 3 crs.

Prq.: AN 201.

A survey of some of the semi-historic and pre-historic Indian cultures in North America.

ANTHROPOLOGY

AN 329 Economic Anthropology

3 crs.

A study of the means of satisfying the needs of non-western non-industrialized and non-cash economies. Emphasis will be placed upon the concepts of wealth, ownership, capital and labor.

AN 402 Field Research

3 crs.

Prq.: Consent of the Instructor.

Methods of field work for cultural anthropologists working in ongoing societies; design of field studies; techniques for collection and analysis of empirical data; experimental field projects.

AN 404 Seminar: Anthropology for Elementary Education

3 crs.

Prq.: AN 201.

Theory and techniques of teaching Anthropology to elementary students: Grades 1 through 6. Special course material in physical and cultural anthropology and pre-history and archaeology.

AN 406 Archaeological Field Excavation, Survey and Research in Prehistoric Village Sites in New England

3 crs.

Prq.: AN 302.

Intensive training in excavation techniques, recordation, analysis, and interpretation of archaeological materials. For students with a concentration in Earth Science. Offered summers only.

AN 499 Directed Study in Anthropology

1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF PSYCHOLOGY

Professor Richard E. Stafford, Chairman

Associate Professors: Herbert Greenwald, Elizabeth Hollis,
Louis Schippers, James Scroggs

Assistant Professors: Drake Chisholm, Margaret Fischer

Instructors: Chester Lupton, Sandra Malloy

The objectives of the Department of Psychology are to (1) provide all students with an understanding of Psychology and what Psychologists do; (2) give students (where applicable) a background in Psychology that will help them do their job better; (3) give our terminal majors sufficient training to enhance their opportunities for vocational placement in Psychology-related occupations; (4) give our majors who intend to become professional psychologists, sufficient preparation to permit them to be competitive in achieving admission and success in graduate schools.

Psychology Major

PY-200, PY-222, PY-224 or PY-226, PY-230, PY-231 (PY-223 is optional but recommended for students contemplating graduate work), plus a minimum of five additional courses in Psychology.
MA-110, BI-101, BI-102

A one-year sequence of foreign language study at the intermediate level, or its equivalent.

PY 200 General Psychology

3 crs.

Basic psychological processes such as perceiving, learning, thinking, emotion, and motivation, as well as more complex areas such as personality, adjustment, and social influences on behavior; major conclusions and basic methods of study in the field.

PY 210 Applied Social Psychology

3 crs.

Prq.: PY 200 and either 230 or consent of instructor.

Effective communication and better understanding of oneself; listening, persuasion, conflict resolution, goals, expectations, and self-confidence. Contemporary problems such as dissent, minority problems. Guest speaker when possible.

PY 222 Psychology of Learning

3 crs.

Prq.: PY 200.

The shaping of behavior, laboratory conditioning, reinforcement, approach and avoidance of a goal, discrimination and generalization of physical cues, animal learning experiments. Experimental approaches to the study of human behavior.

PY 223 Laboratory in Experimental Psychology

3 crs.

Prq.: PY 200, PY 222.

Practical experience in laboratory approach to the study of behavior with considerable freedom for student to design his own experiments. Mainly oriented toward issues in learning and motivation: classical and operant conditioning, generalization and discrimination, extinction and transfer, goal-approach and -avoidance, effect of drive on performance.

PY 224 Child Growth and Development

3 crs.

Prq.: PY 200.

Growth and development of the child from birth to pre-adolescence. Biological, psychological, and social factors as well as moral forces which influence child behavior.

PY 226 Adolescent Psychology

3 crs.

Prq.: PY 200.

The major theories related to pre-adolescent and adolescent development. Physical, mental, moral, emotional, personality, and social aspects will be considered.

PY 228 Psychology of Mental Retardation

3 crs.

Prq.: PY 200.

Origins (genetic, organic, sensory, maternal, and cultural deprivation), manifestations, diagnostic aids, therapeutic and remedial techniques.

PY 230 Social Psychology

3 crs.

Prq.: PY 200.

The individual in social situations: attitude formation and change, culture and society, language and communication, leadership and group dynamics, personality characteristics and interpersonal relationships, small group behavior.

PY 231 Psychology of Personality

3 crs.

Prq.: PY 200.

Basic concepts in the field of personality, organized around such topics as motivation, personality structure and dynamics, personality development, assessment, and therapy. Problems and styles of adjustment will be considered.

PY 300 Abnormal Psychology

3 crs.

Prq.: PY 200

A systematic study of behavior pathology. Symptom patterns, etiology, prognosis, and prevention. Understanding and care of mental illness.

PY 304 Attitude and Personality Measurement

3 crs.

Prq.: PY 231, or PY 230, and MA 110.

Principles of construction of attitude scales and personality assessment techniques, including both projective and inventory-type techniques. Issues and controversies in psychological measurement.

PY 308 Experimental Social Psychology

3 crs.

Prq.: PY 230 and MA 110.

Recent research including developments in methodology, theory, and research findings. Situational approaches and individual differences useful in testing theories and hypotheses and in resolving conflicting findings of previous research. Research project required of the student.

PY 310 Clinical Psychology

3 crs.

Prq.: PY 231 and PY 300.

Survey of diagnostic and treatment procedures and resources in clinical work with children and adults; professional skills and responsibilities of the clinical psychologist.

PY 312 Attitude Change Research

3 crs.

Prq.: PY 230 and MA 110.

Empirical research in persuasion; communicator credibility, opinion difference, commitment, one-sided (pro) and two-sided (pro and con) arguments, coercion, threat, emotional and rational arguments. Theories of attitude change, including dissonance theory, balance theory, congruity theory, and assimilation and contrast theory.

PY 315 Psychological Theory

3 crs.

Prq.: At least four courses in psychology.

Fundamental assumptions underlying the psychological enterprise, and issues which are the subjects of continuing debate in the field—e.g., causality, determinism, methodological approaches, the control of behavior, conceptions of the nature of man.

PY 326 Seminar: Research Methods in the Behavioral Sciences 3 crs.

Prq.: MA 110 and at least four courses in Psychology.

The strategies of scientific research (hypothesis formation, experimental design, statistical analysis, data interpretation) and the tactics of obtaining reliable information and minimizing error e.g., survey methods, various kinds of interviews, individual difference measures, controlled laboratory conditions. Offered only to majors in Psychology or another Behavioral Science.

PY 342 Physiological Psychology 3 crs.

Prq.: BI 102 and PY 200.

A general survey of the neural bases of behavior and current issues of physiological psychology Topics include: instinctive behavior, biopsychological investigation of learning and motivation.

PY 343 Laboratory in Physiological Psychology 3 crs.

Prq.: BI 102 and PY 342 and consent of Instructor.

Skills in the laboratory technique used in biopsychology are developed. Topics include: animal neurosurgery, electro-physiological stimulation and recordings, and the effects of drugs upon behavior.

PY 351 Community Psychology and Mental Health 3 crs.

Prq.: PY 300 and PY 231; or permission of the department.

Examination of principles, literature, and practices of community mental health work and preventive psychiatry. Therapeutic methods in individual, couple, family and group work considered, as well as the role of consultation and the community mental health center.

PY 400 Research Practicum 3 crs.

Prq.: PY 326 or consent of Instructor.

Individual or group research project. Primarily for senior majors in Psychology; others by special arrangement.

PY 499 Directed Study in Psychology 1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF SOCIOLOGY

Professor Morgan Brown, Chairman

Professor Clay Greene

Associate Professor: Lester Houston, Abraham Thomas

Instructor: William Levin

Students within the Department of Sociology receive intensive instruction in the following interrelated areas: culture, personality, and society. The courses deal with man's behavior in its entirety.

Graduates of the Department of Sociology often find employment in social work and community service agencies. Some engage in graduate and professional training. Others teach sociology courses in secondary schools.

Sociology Major

SO-202, SO-303, SO-306, SO-400, and SO-402, plus a minimum of three other courses in Sociology

MA-110

There is no foreign language requirement in Sociology

Sociology Concentration

Three courses from the following:

SO-303, SO-307, SO-312, SO-316

SO 202 Introduction to Sociology

3 crs.

Social structure, basic human institutions, analysis of social processes, major social forces.

SO 204 Sociology of Religion

3 crs.

Comparative study of religious systems and institutions, function and role of religion and the church in society; professional status, history and relations of the clergy.

SO 303 The Family

3 crs.

The family as a social institution in terms of its historical and cultural development. Analysis of psychological and social factors in contemporary family life.

SO 304 Social Stratification

3 crs.

Historical and contemporary examples of the range of stratification systems. Problems of class and caste conflicts. Trends in class system and social mobility, with special attention given to similarities and differences of modern industrial societies.

SO 305 Sociology of Education

3 crs.

Educative factors in the social process. Some attention will be given to preliterate cultures and the functioning of the dominant institutions. Major emphasis on the relation of stratification to education, and of education to horizontal and vertical mobility. Social class and ethnic backgrounds will be examined for their relationship to the functioning of schools. Recent, well-known empirical findings will be discussed.

SO 306 Urban Sociology

3 crs.

Prq.: SO 202, or ES 353, or AN 201, or 202.

A sociological and ecological analysis of the city in terms of urban institutional and personality patterns, folkways and mores. Ecological processes and structures. The city as center of dominance over a trade area and hinterland.

SO 307 Urban Problems

3 crs.

Prq.: Same as SO 306.

Poverty, intergroup conflict, breakdown in education, crime, delinquency and urban riots will be examined. Special emphasis will be on new approaches in education in the city—decentralization, community control, relevant curriculum. For students preparing for urban teaching. Experience in a problem area will be an integral part of the course.

SO 309 Introduction to Social Welfare

3 crs.

Institutional analysis of social welfare, social agencies. Sociological aspects of social work as a profession.

SO 310 Indian Cultures and Social Organization

3 crs.

A descriptive and analytical examination of societies of the Indian subcontinent dealing with their cultural histories, economic, social, political and religious institutions. Problems of cultural and social change. Course may be used to satisfy requirements for Anthropology majors and minors.

SO 311 Social Work Methods

3 crs.

Prq.: SO 309, or permission of the instructor.

A descriptive overview of the field of social work practice. The following topics will be approached from a generic standpoint: Concepts and techniques in practice, casework, group work and community organization, interviewing, roles of workers and clients, social process, problem solving and skill development.

SO 312 Urban Minority Relations

3 crs.

Prq.: Same as SO 306.

A study of the relations between ethnic and racial groups in the United States, with particular attention to the Boston Irish, the Boston Italians, and the Negro-Americans. Concentrations will be upon the Negro in America and the problems of identity.

SO 314 Case Work Methods

3 crs.

Prq.: SO 309.

Case work is based on recognition of internal psychological problems and external social causes of an individual failure to function satisfactorily. Techniques of interviewing. Theoretical study of human behavior. Experience in social work agencies.

SO 316 Social Problems I: Non-Conforming Behavior

3 crs.

Prq.: SO 202.

Contemporary social problems which are reflected in the behavior of individuals, but whose origins and causes lie outside of individuals. Topics treated will include drugs, dope-addiction, crime, juvenile delinquency, divorce and other family problems, mental illness and other health problems, social class, and selected social issues.

SO 317 Field Work Seminar

3 crs.

Prq.: SO 316, or permission of the instructor.

In conjunction with a supervised field experience in a community agency, this seminar will provide opportunity for the student to enhance his social work practice and integrate it in the classroom situation.

SO 318 Social Problems II: Structural Discontinuities and Value Conflicts

3 crs.

Prq.: SO 202, SO 316, or consent of the instructor.

A continuation of Social Problems I. Unemployment, mass poverty, problems of mass communication, world population growth, war, and other major problems involving total societal organizations. Problems will be treated from the standpoint of social change, resulting disorganization, and value conflict.

SO 320 The Sociology of Underdevelopment

3 crs.

Prq.: SO 202, or AN 201.

The study of the "Third World," its kinship, economic, religious, political and international roots, present functions and possible future consequences.

SO 322 Field Experience Internship in Urban Living

6 crs.

Prq.: SO 202 or AN 201, or AN 202.

A supervised field experience internship in urban living. Open to students enrolled in the Divisions of Behavioral Sciences or Education. Work with low-income families and with social agencies and institutions serving the disadvantaged in Boston, Brockton, Fall River, and New Bedford, Massachusetts. Class meetings with the instructor for five hours one day each week.

SO 324 Social Group Work

3 crs.

Prq.: SO 309, SO 311, SO 315, SO 316, or permission of the instructor.

Basic concepts, principles, techniques and approaches used in the offering services to groups. A variety of agencies providing group services will also be examined.

SO 325 Community Organization

3 crs.

Prq.: SO 316, or permission of the instructor.

Presentation and discussion of concepts, principles, methods and techniques of providing human services and upgrading neighborhoods and communities.

SO 328 Criminology

3 crs.

Prq.: SO 202 or its equivalent.

This course will be concerned with theories of crime causation, and perspectives on administration, treatment, prevention, and predication. Consideration will be given to the influence of social class and other factors in criminal behavior.

SO 400 Seminar: Social Theory

3 crs.

The history of social theory and selected topics in modern social theories, analysis of alternative conceptual approaches and their methodological requirements. For majors in Sociology or Behavioral Sciences.

SO 402 Seminar: Research Methods in Sociology

3 crs.

Application of scientific methods to the analysis of social phenomena, methodological orientation in sociology, types of research procedure, nature of sociological variables. For majors in Sociology or Behavioral Sciences.

SO 499 Directed Study in Sociology

1-3 crs.

Prq.: Consent of the Department.

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.





DIVISION OF CREATIVE ARTS

ACTING DIRECTOR: PROFESSOR RIDLON

Art

Music

Speech and Theatre

The Division of Creative Arts, consisting of the departments of Art, Music, and Speech and Theatre, offers majors in Art and Speech and Theatre. In Speech and Theatre a major may choose from among three distinct programs in Communication, Communication Disorders, and Theatre. Minors are offered in each of the above areas as well as in Music. Each of the departments in the division offers a balanced program with ample opportunity for theory and practical creativity. Information about specific programs should be requested from the chairmen of the individual departments.

DEPARTMENT OF ART

Associate Professor Stephen Smalley, Chairman

Associate Professor Doris Tebbetts

Assistant Professors: John Droege, John Heller, William Kendall.

Instructors: Joan Hausrath, Dorothy Pulsifer.

The Department of Art offers students a choice of two major areas of study and career preparation in the visual arts. For both areas care has been taken in developing the study of art so that a basic yet versatile and resourceful foundation in the arts is assured.

The major in art is designed to meet the needs of those students whose career ambitions include training for commercial art fields, industrial and product design, museum research, community art programs or graduate study in the arts, as well as those who seek teaching in the public schools as a career.

Students interested in teaching must select Secondary Education as a minor, if they desire certification in art for the public schools. Others may select a minor complementing their major in art.

The diversity of course offerings within the Art Department provides an excellent opportunity for students electing an art minor or concentration to enlarge upon their cultural foundation. Through a cultivation of aesthetic sensibilities, it is hoped that the entire college experience will be enriched.

To help insure an appropriate selection of art courses in the major, minor or concentration, it is important that each student work closely with his or her art advisor or the department chairmen in program selection. This is particularly important within an instructional program that seeks to develop and refine art skills as well as enlarging upon one's own creative dimensions.

Art Major

AR-120, AR-201, AR-202, AR-220, AR-230, AR-250, AR-271

Fifteen (15) additional credit hours in art selected in conjunction with your major advisor.

Art Minor

Eighteen semester hours in Art as selected in conjunction with your art advisor.

Art Concentration

Twelve semester hours in Art as selected in conjunction with your art advisor.

AR 110 Introduction to Art

3 crs.

Emphasis on painting, sculpture, and architecture; analysis of media, technical processes, and aesthetic principles; and discussion of style and its historical context. Assigned readings and museum visits.

AR 120 Basic Design

3 crs.

Studio exercises dealing with the fundamental elements and principles of design including color, shape, line, texture, balance and space and the organization of these elements in a work of art. Three two hour periods weekly.

AR 200 Understanding Arts**3 crs.**

The development of a framework for visual understanding and enjoyment. Art is approached from both an analytical and a theoretical point of view. Attention is focused on the social, psychological and critical aspects of works of art. (Not offered in 1974-1975.)

AR 201 History of Art I**3 crs.**

Prq.: AR 110, or consent of the instructor.

Major developments in art from the prehistoric through the late Gothic. Style is examined in relation to the historical process. Assigned readings and museum work.

AR 202 History of Art II**3 crs.**

Prq.: AR 110, or consent of the instructor.

Major developments in art from the Renaissance through the Modern era. The historical approach supplemented with analysis of stylistic problems. Assigned readings and museum work.

AR 220 Drawing I**3 crs.**

Basic concepts: perspective, modeling in light and dark, contour drawing. Exploration of various media: pencil, pen and ink, charcoal, ink wash, etc. Three two-hour periods weekly.

AR 230 Painting I**3 crs.**

Basic skills, picture organization, and painting techniques applied to assigned problems. Field trips to museums and galleries. Three two-hour periods weekly.

AR 235 Watercolor Painting**3 crs.**

Development of transparent watercolor techniques and pictorial composition. Three two hour periods weekly.

AR 240 Sculpture**3 crs.**

Design experimentation with traditional and new techniques. Media will include wood, metal, and resins. Three two-hour periods weekly.

AR 245 Wood Design**3 crs.**

Exploration of the many uses of wood as a material of creative expression. Emphasis upon the proficient use of hand tools and the esthetic and utilitarian uses of wood. Three two-hour periods weekly.

AR 250 Introduction to Printmaking**3 crs.**

The basic methods, materials and processes used in printmaking. Three two-hour periods weekly.

AR 260 Glassblowing I**3 crs.**

Prq.: Consent of the instructor.

Glass as a means of creative expression; the basic forming techniques and methods of design in glass. Three two-hour periods weekly. (Not offered in 1974-1975).

AR 271 Ceramic Design**3 crs.**

Basic wheel forming and construction. Techniques in clay. Three two-hour periods weekly.

AR 272 Wheel Throwing**3 crs.**

Prq.: AR 271 or consent of the instructor.

Advanced problems and experience on the potter's wheel, and esthetics of ceramic design. Three two-hour periods weekly.

AR 280 Metal Design I**3 crs.**

Basic design, construction, and forming techniques. Jewelry, constructed forms, sculpture. Three two-hour periods weekly.

ART

AR 290 Textile Design I

3 crs.

Design as related to weaving, knotting, and crewel work. Student may choose according to individual interest. Three two-hour periods weekly.

AR 300 Materials and Methods

3 crs.

Studio experiences with materials and processes related to the teaching of art in the public schools. Discussion of methodology and child art. Assigned readings and field trips to school art programs. Three two hour periods weekly.

AR 302 Greek and Roman Art

3 crs.

Painting, sculpture, architecture and the minor arts. Historical antecedents and significant cultural influences in art.

AR 303 Medieval Art and Architecture

3 crs.

A study of painting, architecture, sculpture and minor arts produced in Europe from the time of early Christianity to the Renaissance. Special emphasis on stylistic and cultural influences.

AR 304 Renaissance Art and Architecture

3 crs.

The development of the arts of architecture, painting, and sculpture in the Early and High Renaissance, with special emphasis on their interrelationships and their relation to the artistic theories and cultural ideals of the time.

AR 305 Baroque Art

3 crs.

Mannerist and Baroque styles of the sixteenth through eighteenth centuries will be studied, with emphasis on their origins in Italy and development through Western Europe.

AR 307 Modern Art

3 crs.

Painting, sculpture and architecture from Neo-Classicism to the present. Emphasis on major contemporary art movements.

AR 308 American Art and Architecture

3 crs.

Major trends in painting, sculpture, and architecture in America, 1620 to present, including regional styles, folk art, and crafts.

AR 309 Arts of the Far East

3 crs.

A selective review of major achievements in the arts of the Asiatic tradition, including those of India, Indonesia, China, Korea, and Japan. Comparison, when appropriate, with the arts of the West. (Not offered in 1974-1975).

AR 310 Art and the Crafts in Special Education

3 crs.

Art education theory and direct experience with a variety of materials and processes adapted to the needs of special education. Three two-hour periods weekly.

AR 311 Primitive Art

3 crs.

Formal art properties and esthetic qualities of primitive art; the physical, psychological, and sociological backgrounds which brought this art into being.

AR 312 Interior Design

3 crs.

Traditional and contemporary styles in furniture and interior design studied in illustrated lectures and field trips. Problems in selection and arrangement of home furnishings.

AR 320 Drawing II

3 crs.

Prq.: AR 220 or consent of the instructor.

Advanced projects will be planned according to the individual's style development and media preference. Three two-hour periods weekly.

AR 330 Painting II**3 crs.**

Prq.: AR 230 or consent of the instructor.

Advanced projects will be planned according to the individual's style of development. Three two-hour periods weekly.

AR 340 Sculpture II**3 crs.**

Prq.: AR 240 or consent of instructor

Advanced projects will be planned according to the individual's style, development and media preference. Three two hour periods weekly.

AR 350 Printmaking II**3 crs.**

Prq.: AR 250 or consent of instructor

Advanced projects planned according to the student's stylistic development and media preference. Three two hour periods weekly.

AR 360 Glassblowing II**3 crs.**

Prq.: Consent of the instructor.

Further exploration of glassblowing. Emphasis on studio equipment, design, and advanced techniques. Three two-hour periods weekly. (Not offered in 1974-1975.)

AR 370 Clay and Glazes**3 crs.**

Prq.: AR 271 or consent of the instructor.

Advanced work in the chemistry and compounding of clay and glaze materials. Three two-hour periods weekly.

AR 380 Metal Design II**3 crs.**

Prq.: AR 280 or consent of the instructor.

Advanced problems and techniques. Three two-hour periods weekly.

AR 390 Textile Design II**3 crs.**

Prq.: AR 290 or consent of the instructor.

Advanced problems and techniques. Three two-hour periods weekly.

AR 480 Advanced Jewelry Design**3 crs.**

Prq.: AR 280 or consent of the instructor.

Specialized techniques for the design and creation of jewelry in precious metals, and experimental construction techniques with these metals. Three two-hour periods weekly.

AR 499 Directed Study in Art**1 - 3 crs.**

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF MUSIC

Professor Kenneth Falkner, Chairman

Associate Professors: Dorothy Ferry, Vincent Gannon

Assistant Professors: Theodore Davidovich, Ian Johnstone, Jacob Liberles

Instructors: Maxine Asseline, Henry Santos

The Music Department offers a minor and a concentration in music for the liberal arts and elementary education majors, courses for the humanities elective requirement, private instruction in piano and voice, and performing organizations for the student who wishes to take a more active part in music.

Students must notify and receive approval from the department chairman for acceptance into the music program. A grade of C or better is expected in all music course work as well as membership in one performing organization.

Music Minor

6 credits in applied voice or piano

MU-171, MU-172, MU-160 or MU-170

One Course from: MU-363, MU-364, MU-365, MU-366

Music Concentration

MU-140, MU-240, MU-251, MU-255

(MU-330, MU-360 for Elementary majors wishing to gain a minor in Music)

***MU 113 Stage Band**

1 cr.

Prq.: Consent of the instructor.

A performing group limited to twenty students in a laboratory experience which stresses basic musicianship, analysis of form and style, ensemble playing, and improvisation. One three-hour period weekly.

***MU 115 Instrumental Ensemble**

1 cr.

Prq.: Consent of the instructor.

A mixed group of instruments which performs music originally written for that particular combination of instruments. Ensembles formed as the occasion demands. One three-hour period weekly.

***MU 117 Women's Glee Club**

1 cr.

Open to all female students who like to sing. Performances are given during the year which includes traditional and folk songs, arrangements from musical comedies and music that is currently popular.

***MU 118 Chorale**

1 cr.

Prq.: Consent of the instructor.

A selected group of mixed voices which performs works representative of many periods of music and presents concerts throughout the academic year, at times with other college groups on and off campus. Three periods weekly.

***MU 119 Vocal Ensemble**

1 cr.

Prq.: Consent of the instructor

A mixed group of voices which is organized to perform a particular type of music. Ensemble formed as the occasion demands. Three periods weekly.

**From MU 113, 115, 117, 118 and 119, and from any and all co-curricular activities in which a student might wish to participate and for which the College grants or may decide to grant credit in the future, a student may accumulate not more than one (1) credit per semester, nor more than two (2) per year, nor more than six (6) per college career.*

MU 131 Applied Voice I**1 cr.**

Prq.: Consent of instructor.

Private lessons in voice for the beginning student and those with a limited background in singing. Basic concepts in posture, breathing, diction and vocalises stressed. Solo material selected from vocal literature in English with an introduction to literature in a foreign language. One half-hour period weekly. May be repeated for credit.

MU 140 Class Piano I**3 crs.**

For beginning piano students who desire a fundamental approach to the keyboard. Required of elementary education majors who have elected music as a concentration or a minor. Includes correct use of the hands at the keyboard, playing of simple scales and chords, arpeggios and simple melodies; scale construction and use of I, IV and V chords.

MU 141 Applied Piano I**1 cr.**

Prq.: Consent of the instructor.

Private instructions for the beginning piano student and those with limited background in piano. Material selected according to the ability of the student. May be repeated for credit. One half-hour period weekly. May be repeated for credit.

MU 150 Essentials of Music**3 crs.**

Required of all Elementary and Special Education majors but not those who have elected music as a concentration or minor. A non-technical approach to the use of music in the elementary school which serves to enhance the student's knowledge and ability to use music in the classroom.

MU 160 Music Literature I**3 crs.**

A non-technical humanities elective which explores music from the Baroque through contemporary periods with emphasis on how to listen to music intelligently. Selected works by the masters include symphonies, concertos, oratorios, operas, and smaller works which are used for study, listening and discussion.

MU 171, 172 Harmony I-II**3 crs. for each semester.**

A beginning technical course in the study of 18th and 19th century theory of music for students who wish a foundation for further development of their musical awareness. Includes rudimentary fundamentals of music theory, harmonic structure of chords of the sixth through secondary dominants, and simple modulations. MU 171 is prerequisite to MU 172.

MU 240 Class Piano II**3 crs.**

Prq.: MU 140 or consent of the instructor.

A continuation of MU 140 with advanced keyboard work and more difficult melodies and rhythmic patterns. Use of II, III and VI chords, simple modulations, and keyboard harmony.

MU 251 Choral Techniques**3 crs.**

Prq.: MU 240 or consent of the instructor.

A required course for Elementary Education majors who have elected music as a concentration or minor and open to other students with permission of instructor. Investigation and study of problems in choral singing, the voice, rehearsal and conducting technique, elementary and advanced choral literature. Melodic, rhythmic, polyphonic dictation is included.

MU 255 Music Materials for Elementary Teachers**3 crs.**

MU 240 and consent of the instructor.

For those who wish to become more actively involved with music in the classroom. Includes singing, use of instruments, listening, reading music, and rhythmic activity.

MUSIC

MU 330 Voice Class

3 crs.

Prq.: MU 251 or consent of the instructor.

Correct posture, breathing and control are studied as well as ways of correcting individual voice problems, repertoire, solfeggio, and advanced dictation.

MU 331 Applied Voice II

1 cr.

Private lessons in voice for those who have satisfied the requirements of MU 131. A continuation of vocalises, breath and tone control, solo material from the literature of German, French, and Italian composers as well as contemporary works in English. One half-hour period weekly. May be repeated for credit.

MU 341 Applied Piano II

1 cr.

Prq.: MU 141 and consent of the instructor.

For the advanced student of piano who wishes to improve his ability at the keyboard. Practical experience offered in free and directed rhythmic responses, use of melody, percussion and chording instruments, use of the piano, and singing activities. May be repeated for credit.

MU 355 Creative Activities in Elementary School Music

3 crs.

Prq.: MU 240, MU 255, or consent of the instructor.

Practical experience offered in free and directed rhythmic responses, use of melody, percussion and chording instruments, use of the piano, and singing activities.

MU 360 Music Literature II

3 crs.

Prq.: MU 172 or consent of the instructor.

An advanced course in the development of music with a study of style, form and structure through analysis, listening, and discussion.

MU 363 Music of the Renaissance and Baroque Periods

3 crs.

Prq.: MU 160 or consent of the instructor.

A study of vocal and instrumental, sacred and secular music through readings, lectures and discussion of selected compositions representative of these two periods. (Not offered in 1974-75)

MU 364 Music of the Classical and Romantic Periods

3 crs.

Prq.: MU 160 or consent of the instructor.

A study of vocal and instrumental music of these two periods through readings, lecture, listening and discussion. (Not offered in 1974-75)

MU 365 Music of the Contemporary Period

3 crs.

Prq.: MU 160 or consent of the instructor.

A study of present day music and its relationship to the past; includes experimental and electronic developments; readings, lecture, listening and discussion.

MU 366 Music of the Opera

3 crs.

Prq.: MU 160 or consent of the instructor.

A listener's approach to opera with representative examples from Peri to present day composers. Works by composers from Germany, France and Italy will be studied along with contributions from England and America.

MU 370 Music Skills

3 crs.

For the elementary teacher or undergraduate student who wishes a knowledge of the basic fundamentals of music to use as a basis for further study. Includes scales, chords, singing, playing simple instruments, and rudimentary harmonic progressions. (Not offered in 1974-1975.)

MU 499 Directed Study in Music

1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF SPEECH AND THEATRE

Associate Professor Robert J. Barnett, Chairman

Professors: Karin DuBin, Willis Pitts

Associate Professor: Richard Warye

Assistant Professors: Stanley Deetz, Lee Dunne, Robert Friedman,
Stephen Levine

Instructors: Susan Miskelly, Joanne Wuschke

Well established for over half a century as an academic discipline in other regions of the United States, the field of communication arts and sciences has only recently achieved stature in New England. Bridgewater State College currently is the only institution in the Massachusetts state college system offering a major in this discipline.

Study of the field of communication provides the background for many careers. While occupational opportunities in secondary education have become more limited recently, many high schools are increasing the relevance of their curricula by adding courses in communication areas. Educators trained in communication also provide needed expertise for developing and supervising co-curricular programs in theatre, debate, oral interpretation, and public speaking. The student majoring in communication disorders at Bridgewater State College may meet the certification requirements of the Department of Education of the Commonwealth of Massachusetts. Majors who wish to pursue a career in speech pathology and audiology must obtain a master's degree for national certification by the American Speech and Hearing Association.

Some non-teaching careers possible for Speech & Theatre graduates are: Advertising, Broadcasting, Industrial Communication, Market Research, Politics, Professional Theatre Performer or Director, Professional Theatre Technician, Public Relations, Recreation.

The field also provides a solid undergraduate foundation for graduate study in the professions of law or theology.

Core Requirements

The Department of Speech and Theatre offers its majors the choice of specializing in one of three separate and distinct areas: Theatre, Communication, or Communication Disorders. Each student must complete not less than 24 nor more than 36 semester hours in his field of concentration within the department, including the following courses required of all Speech & Theatre majors. Beginning with the class of 1977 students will be required to take only those courses which are starred.

*ST-200

*ST-210

ST-310

ST-370

*ST-495

Students enrolled as Speech and Theatre majors must pass a Speech Proficiency Test before the end of their first year in the department. Transfer students from other colleges or from other majors must pass this test before being accepted as a major in the department.

Theatre

SPEECH AND THEATRE

Students who select Theatre as their area of specialization follow a program designed to familiarize them with and to develop an appreciation of those subjects related to performance and production in live theatre. A minimum of fifteen (15) semester hours of theatre courses, plus six (6) hours in Theatre Practicum are required.

ST370

ST380

ST390 or ST395

ST431

ST432

Communication

Majors in Communication pursue a course of applied and theoretical studies in interpersonal relationships, small group communication, organizational communication, public speaking, and debate. This specialization requires a minimum of twelve (12) semester hours of communication courses:

ST220 or ST450

ST310

ST350 or ST351

ST360 or ST460

Communication Disorders

The primary purpose of the Communication Disorders specialization is to provide the basic theory and training necessary to qualify a student for a position as a certified teacher or clinician of speech and hearing in the area of speech and hearing pathology. The area of Communication Disorders requires a minimum of fifteen (15) hours of courses:

ST291

ST490

ST491

ST498

If state certification is sought however, the student is expected to take ST-440 and ST-493, plus an additional twelve (12) hours from the fields of Education and Psychology chosen from the following areas:

Psychology of the Handicapped

Principles of Teaching Handicapped Children

Child Development

Guidance

Educational Tests and Measurements

Mental Hygiene

Abnormal Psychology

Education Minors

Majors in this department with a minor in Secondary Education will take ST-310 and ST-370, in addition to the other departmental requirements. These courses may not be applied to the required number of semester hours in his or her specialization.

Minor

Eighteen (18) semester hours are required within the department for a minor. In the areas of specialization of Theatre and Communication the basic courses are:

ST200

ST210

ST370

Nine (9) additional semester hours must be taken in one area of specialization plus three in Theatre Practicum (if Theatre is the minor).

In Communication Disorders the minor must include the following sequence:

ST200

ST291 or ST210

ST490

ST491

ST440

Concentration

At least nine (9) semester hours constitute a concentration in speech. The concentration for Elementary Education majors includes :

ST-310

ST-370

ST-330 or ST-400

Co-Curricular Credits

Students may also receive credits in the department for active participation in debate, forensics, Verse Choir, or theatre (see ST110, ST120, ST130).

Foreign Language Requirements

Although no foreign language is required of Speech & Theatre majors, study of a modern foreign language is encouraged and such credits may be applied to meet the Humanities/Creative Arts General Education Requirement. Those who do not elect to take a foreign language are required to take 12 semester hours in Humanities or Creative Arts.

THEATRE

***ST 120 Choral Speaking Practicum** **1 cr.**
Credit is given for sixty (60) or more hours of participation in Verse Choir.

***ST 130 Theatre Practicum** **1 cr.**
Credit is given for sixty (60) or more hours of participation in theatre.

ST 310 Oral Interpretation **3 crs.**
Oral reading of selected prose, poetry and drama: Individual and group forms. Theory and practice.

ST 330 Creative Dramatics **3 crs.**
Development of the child's creative faculties through the use of dramatic play in laboratory sessions as well as classroom activity.

- ST 370 Play Production I** **3 crs.**
Reading, selection, analysis, and preparation of scripts for presentation. Theory and practice.
- ST 380 Stagecraft** **3 crs.**
Prq.: ST 370
Theory and practice of technical theatre with emphasis on planning the production. Study and practice in stage management, set construction, costuming, properties, make-up, and sound.
- ST 385 Stage Lighting** **3 crs.**
Materials and techniques fundamental to historical and contemporary stage lighting; analysis of the principles of design as they relate to contemporary theatre execution.
- ST 390 Principles of Acting** **3 crs.**
Prq.: ST 370.
Development of appreciation and basic skills in the fundamentals of acting. Exercises, improvisations, and scenes.
- ST 391 Advanced Acting** **3 crs.**
Prq.: ST 370, ST 390 or consent of the instructor.
Advanced problems and projects; intensive scene analysis and introduction to styles of acting.
- ST 392 Improvisational Acting** **3 crs.**
Development of the student's capabilities to interpret his awareness of life through concentration, imagination, and observation.
- ST 395 Principles of Directing** **3 crs.**
Prq.: ST 370.
Basic knowledge and techniques for the beginning director. Play analysis, composition, movement, characterization and rehearsal.
- ST 420 Children's Theatre** **3 crs.**
Prq.: ST 370.
Theatre for the child audience. Theories applied by assuming responsibility for the production of a play for children on campus and in area schools.
- ST 431 Theatre History I** **3 crs.**
Trends in dramatic and theatrical developments throughout the western world from Ancient Greece to the 17th century.
- ST 432 Theatre History II** **3 crs.**
Trends in dramatic and theatrical developments throughout the western world from the 17th century to the present.
- ST 435 Period Styles of Theatrical Productions** **3 crs.**
Prq.: ST 390, ST 395 or consent of the instructor.
Analysis and practice of the staging methods and styles of selected historical periods which are considered classic in the evaluation of theatre, such as: styles appropriate to the works of Sophocles, Plautus, Shakespeare, and Moliere.
- ST 470 Playwriting** **3 crs.**
Appreciation of the nature of the play as an art form. Analysis of plays of various types; practice in writing.
- ST 495 Speech and Theatre Seminar** **3 crs.**
Study and application of research methods in the area of speech and theatre, with particular emphasis on the individual student's interests in the discipline. Required of all speech and theatre majors.

COMMUNICATION

- *ST 110 Debate Practicum** **1 cr.**
Credit is given for sixty (60) or more hours of participation in inter-collegiate debate and forensics.
- ST 200 Oral Communication** **3 crs.**
Examination of the practical and theoretical aspects of interpersonal communication.
- ST 220 Communicative Reasoning** **3 crs.**
Basic theories of rhetorical logic from Aristotle to Blair, Campbell, Whately, through I. A. Richards.
- ST 350 Public Speaking** **3 crs.**
Intensive study, evaluation and analysis of speech preparation with frequent presentations of various speech types.
- ST 351 Persuasion** **3 crs.**
Prq.: ST 200.
Study of the theory of persuasive speaking with frequent practice.
- ST 360 Group Discussion** **3 crs.**
Prq.: ST 200.
Principles of interpersonal communication with stress on participation, leadership, and reasoning.
- ST 361 Parliamentary Procedure** **3 crs.**
Principles and practice. Relationship to the conduct of business in clubs, governments and other organizations.
- ST 400 Creative Techniques for Teaching** **3 crs.**
Story telling, creative dramatics, role playing, choral speaking, puppets and masks, and other speech arts, and their practical application in teaching various subjects.
- ST 450 Communicative Theory** **3 crs.**
Prq.: ST 200.
An introduction to the nature and role of theories in understanding human communication and an exploration of various current communication theories and perspectives. Special attention will be paid to the practical and social consequences of accepting any theory.
- ST 452 Organizational Communication** **3 crs.**
Prq.: ST 200, or permission of the instructor.
Analysis of communication problems in modern complex organizations, theory and practice.
- ST 460 Argumentation and Debate** **3 crs.**
Prq.: ST 200.
The essentials of stating and supporting proposition. Study of forms of debate, and of theories of argument, frequent practice.
- ST 480 Introduction to Television** **3 crs.**
Television as a medium of communication in society and in the school. Study of the historical development of broadcasting and the current status of the medium. Active participation in developing skills of performance for use as an educator, civic leader, or professional broadcaster.

*Note: From the one-credit co-curricular activities, ST 110, 120, and 130, and from any and all co-curricular activities in which a student might wish to participate and from which the College grants, or may decide to grant credit in the future, a student may accumulate not more than one credit per semester (two per year) nor more than six per four year degree program.

SPEECH AND THEATRE

ST 485 Directing for Television

3 crs.

Prq.: ST 480.

Principles and skills involved in the production of units or programs for television presentation.

ST 495 Speech and Theatre Seminar

3 crs.

Study and application of research methods in the area of communications arts and sciences, with particular emphasis on the individual student's interests in the discipline. Required of all speech and theatre majors.

COMMUNICATION DISORDERS

ST 210 Voice and Diction

3 crs.

Analysis of each student's habits of respiration, phonation, and articulation; exercises designed to correct poor habits. Physics and physiology of the vocal mechanism. Training in perception, differentiation, and production of the standard sounds of good American speech.

ST 291 Phonetics

3 crs.

Speech sound production. The International Phonetic Alphabet and American English.

ST 440 Audiology

3 crs.

Prq.: ST 290, ST 291.

Science of hearing, transmission and measurement of sound to the human ear; anatomy, physiology, and neurology of hearing mechanism. Related pathological conditions.

ST 490 Speech Anatomy and Physiology

3 crs.

Examination of the human hearing and vocal mechanisms involved in the speech act and their relationship to various speech disorders.

ST 491 Communication Disorders I

3 crs.

Study of normal speech and language development. Articulation, stuttering, and language disorders in children are discussed.

ST 492 Communication Disorders II

3 crs.

Prq.: ST 491 or consent of the instructor.

Continuation of Communication Disorders I with emphasis on organic pathologies in children and adults. Rehabilitation procedures discussed.

ST 493 Speech Reading and Auditory Training

3 crs.

Prq.: ST 410 or consent of the instructor.

Habilitative and rehabilitative procedures for the deaf and hard of hearing with emphasis on auditory training, speech reading and speech conservation.

ST 495 Speech and Theatre Seminar

3 crs.

Study and application of research methods in the area of speech and theatre, with particular emphasis on the individual student's interests in the discipline. Required of all speech and theatre majors.

ST 498 Clinical Practicum

6 crs.

Prq.: ST 491 and ST 492.

Supervised clinical practice in diagnostics and therapy.

ST 499 Directed Study in Speech & Theatre

1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.





DIVISION OF HUMANITIES

DIRECTOR: PROFESSOR BOYLE

English

Foreign Language

Philosophy and Religious Studies

The Division of Humanities, consisting of the departments of English, Modern Foreign Language and Philosophy and Religious Studies, provides instruction in several areas of humanistic endeavor. Through its faculties, the Division offers majors in English, French and Spanish, and minors in these subjects as well as German, Italian, Philosophy, Portuguese, Russian and Religious Studies. Interested students should consult the departmental listings which follow and are urged to confer with department chairmen regarding the choice of a program of study.

DEPARTMENT OF ENGLISH

Professor Harold Ridlon, Chairman

Professors: Joseph DeRocco, Charles McGinnis, Samuel Sheinfeld

Associate Professors: Marcia Anderson, Frances Guerin, Mary Jarvis, Clifford Wood, Joseph Yokelson

Assistant Professors: Barbara Apstein, Thomas Curley, Harold DeLisle, Charles Fanning, Donald Johnson, Grant Keener, Joseph Liggera, James Nerney, Charles Nickerson, Lois Poule, Phyllis Toback, Paula Vadeboncoeur, Delija Valiukenas

Instructors: Charles Angell, John Porter, Judith Stanton

The program of study for English majors aims to give students an acquaintance with the history and background of English and American literature, an understanding of great literary works, and the ability to analyze, interpret, and appreciate what they read. With a broad foundation in English and American literature, and a firm grasp of literary principles and critical techniques, the English major could pursue any of the following fields of interest: graduate study in English; teaching; creative writing; technical writing; advertising; publishing; law.

For students who wish to engage in intensive study of the literature and culture of a particular period while still fulfilling the normal course requirements for the English Major, the Department offers a special track of Interdisciplinary options in Medieval, Seventeenth Century, and Nineteenth Century language and literature.

English Major

Majors must achieve a grade of C or above in EN-101, EN-102.

A minimum program must include three semester hours in each of the following:

English literature before 1800;

English literature after 1800;

American literature.

No more than twelve hours of 200 level courses can be credited toward the major.

The major must earn a minimum of 36 credits in English which may include the general education requirements of EN-101, EN-102, and 3 hours of literature.

Students majoring in English may meet the departmental foreign language requirements by successful completion of twelve hours of course work in **one** of the following combinations:

1. Six hours of elementary plus six hours of intermediate study in the same foreign language,
2. Six hours of intermediate plus six hours of advanced study in the same foreign language,
3. Six hours of intermediate foreign language study plus six hours of courses in "literature in translation" offered by the Foreign Language Department,
4. Students entering with study equivalent to or more than the intermediate level, must take six hours of advanced study in a foreign language or six hours of courses in "literature in translation."

Successful completion of EN-101, EN-102 (or their equivalent) is a prerequisite to all other English Courses.

EN 101, 102 English Composition 3 crs. for each semester.

The aim of English Composition is to develop greater awareness of the potential of the language, to encourage responsibility for its more effective use, and to provide opportunity for frequent directed practice in writing. Through the use of literary models such as essay, poem, short story, novel, and drama, students will be trained to think, speak read and write more effectively. EN 101 is prerequisite to EN 102.

EN 200 Advanced Composition 3 crs.

Expository writing is taught through frequent practice, analysis of models, and criticism by instructor and students. Opportunity is available for the student to develop his writing in any specific area he chooses, but emphasis will be on satire, argument, critical analysis, exposition, and description. Some attention will be given to the major developments in English prose style since 1600.

EN 211, 212 Literary Classics of Western Civilization 3 crs. for each semester.

Through classic examples of epic, myth, sacred history, parable, allegory, tragic and comic drama, philosophical dialogue, satire, lyric, and novel, the student will be introduced to the principal literary forms through which great writers, from ancient times to the twentieth century, have contributed to the religious, intellectual, moral, and esthetic traditions of Western culture.

EN 214 Classical Literature in Translation 3 crs.

The course will study the important Greek and Roman Writers including, among others, Homer, Sophocles, Plato, Euripides, Cicero, Horace, and Virgil. The focus will be on rediscovering the grandeur and glory of classical civilizations.

EN 215 Comparative Drama 3 crs.

A study of plays of different periods dealing with the same mythological or historical themes. Included will be plays on the Oedipus theme, from Sophocles to Cocteau; plays about the House of Atreus, from Aeschylus to Sartre; plays about Antony and Cleopatra, from Shakespeare to Shaw; and plays about Joan of Arc, from Schiller to Anouilh. The larger purpose of the course will be to explore the freedom within limits of an artist who chooses to work with established plot materials.

EN 221, 222 Major English Writers 3 crs. for each semester.

Representative works by the major English writers will be studied both formally and historically to develop an understanding of the genres, styles, and themes which characterize English imaginative and critical writing. The first semester will examine works from the Anglo-Saxon period to the eighteenth century; the second, works of the nineteenth and twentieth centuries.

EN 225 The Theme of Love 3 crs.

Various literary treatments of the theme of love will be approached through such works as the following: Chaucer, *Troilus and Criseyde*; Donne, Poetry; Shakespeare, *Romeo and Juliet*, *Anthony and Cleopatra*; Dryden, *All for Love*; Byron, *Don Juan*, Cantos I-IV; Bronte, *Wuthering Heights*; Browning, Poems; Henry James, *The American* or *The Portrait of a Lady*; Lawrence, *Sons and Lovers*; Hemingway, *A Farewell to Arms*.

EN 230 Creative Writing 3 crs.

Fiction, non-fiction, verse, drama or any experimental forms may be undertaken by the student. Class discussions will center on the examination of both professional and student efforts. Frequent conferences will be held with individual students.

EN 231, 232 Major American Writers 3 crs. for each semester.

A general survey of American Literature from the colonial beginnings to the present. Writers such as Franklin, Edwards, Irving, Poe, Hawthorne, Emerson, Whitman, Dickinson, Twain, James, Frost, Eliot, Faulkner, and Hemingway will be studied in their social and cultural contexts.

EN 235 The Short Novel

3 crs.

Prq.: consent of the instructor.

Works selected from such writers as Conrad, James, Faulkner, Mann, Kafka, and Dostoevsky.

EN 238 The Short Story

3 crs.

The primary focus will be on the examination of the relationship between form and content in several British, American, and continental short stories. A secondary concern will be the historical development of the genre.

EN 241, 242 Shakespeare

3 crs.

A general introduction to Shakespeare's plays set against the background of the times. Representative selections from the tragedies, comedies, and histories will be studied in detail.

EN 251 Literary Figures and Problems

3 crs.

The course will provide the sophomore student with the opportunity to study particular literary figures and problems. The reading will offer an in depth approach to figures and problems, viewing them from a broad historical and critical perspective.

EN 252 Literary Types

3 crs.

The course will approach literature by type, meaning 'type' to signify both genre and form. A semester's study might focus on biography and autobiography, the novel, the epic, comedy, tragedy, or satire. The reading will include diverse works representative of a particular type.

EN 261 Film Study: Introduction to the Art

3 crs.

The course will provide the student with a critical evaluation of major American and foreign films and directors from the silent era to the present. The study will be directed toward developing in the student standards of critical awareness and esthetic appreciation. In addition to film viewing, there will be readings in film theory, interpretation, and criticism.

EN 262 Film Study: Literature Into Film

3 crs.

The course will focus on the way in which literature is adapted to film. Viewing and reading works in both media will be required.

EN 280 Journalism

3 crs.

Students will be helped to develop skills in copyediting and proofreading with special emphasis given to objective news story writing. Some attention will be given to dramatic criticism and sports writing. The workshop approach will be used.

EN 301 Writing and the Teaching of Writing

3 crs.

Writing, criticism, creativity. Student participation in criticism as a learning device and as a means to a reasonable load for the teacher. Objective is to improve the student's writing skill by the same techniques he can use in teaching the skill. Text by Don Murray.

EN 305 History of the English Language

3 crs.

Origins and development of English. Selected readings in Old and Middle English.

EN 309 Early American Literature

3 crs.

The course will focus on selected readings from Colonial beginning through James Fenimore Cooper. Offered in alternate years.

EN 311 The Negro in U. S. Literature

3 crs.

Prq.: EN 231 or EN 331 or consent of the instructor.

Autobiographies and fiction beginning chronologically with *The Life of Frederick Douglass*, with particular attention paid to *Uncle Tom's Cabin*, *Native Son*, and *Invisible Man*.

EN 312 Studies in Modern British Fiction 3 crs.

Prq.: EN 222 or consent of the instructor.

Readings in selected twentieth-century British novelists, such as E.M. Forster, D. H. Lawrence, James Joyce, and Graham Greene.

EN 314 Medieval English Literature 3 crs.

Prq.: EN 211, or EN 221 or consent of the instructor.

Selected readings in non-Chaucerian writing: Langland, Gower, romance, lyrics, drama.

EN 320 Chaucer 3 crs.

Prq.: EN 222 or consent of the instructor.

Troilus and Criseyde and selected readings from the *Canterbury Tales*.

EN 321 The Age of Pope 3 crs.

The literature of the neo-classical period, with emphasis on the works of Pope, Swift, Gay, Addison and Steele.

EN 322 The Age of Johnson 3 crs.

The writings of several major literary figures, such as Johnson, Boswell, Fielding, Richardson and others.

EN 323 Linguistics 3 crs.

The generative-transformational theory of syntactic structures as applied to the English language. Selected readings on various aspects of linguistics.

EN 324 Linguistic History of the English Language 2 crs.

Readings and linguistic analysis of Old Middle and Modern English. Four periods weekly for one quarter.

EN 329 Modern American Fiction 3 crs.

Prq.: EN 232 or consent of the instructor.

The course will focus on short fiction and the novel between the two World Wars.

EN 330 Recent American Fiction 3 crs.

The course will focus on short fiction and the novel since World War II. Such writers as Mailer, Bellow, Updike, Roth, and others will be studied.

EN 331 U.S. Literature in the Nineteenth Century 3 crs.

Selected readings in C.B. Brown, Cooper, Hawthorne, Poe, Emerson, Thoreau, Whitman, and Dickinson.

EN 332 U.S. Literature in the Nineteenth Century 3 crs.

Prq.: EN 231 or EN 331.

The novels and tales of Melville, Twain, Hawthorne, and James

EN 333 Realism and Naturalism in American Literature 3 crs.

Studies in the fiction of Howells, James, Stephen Crane, Frank Norris, Theodore Dreiser, and in the twentieth-century extensions of realism in the novels of writers such as Sinclair Lewis, Sherwood Anderson, Dos Passos and Farrell. Attention will also be paid to the proselytizing criticism of the first generation of realists, notably James's Prefaces and Howells' essays.

EN 335 Elizabethan and Jacobean Drama 3 crs.

Reading and discussion of a number of plays with attention to contemporary social developments as well as to the historical development of the English play.

EN 340 Literature of the English Renaissance 3 crs.

The non-dramatic literature of the Age of Shakespeare including the reading of works by such writers as Sidney, Spenser, Nashe, Marlowe, and Drayton. Although the emphasis will be on textual analysis, the historical, social, and cultural background of the period will also be considered.

EN 341 Literature of the Continental Renaissance**3 crs.**

Selected works of Petrarch, Boccaccio, Machiavelli, Erasmus, Castiglione, Rabelais, Cellini, Montaigne, Cervantes, and Ronsard representing prevailing literary themes and techniques. Lectures and discussions on the art, history, philosophy, and music of the age will be offered by faculty in these disciplines.

EN 342 Shakespeare: Histories and Comedies**3 crs.**

Shakespeare: Histories and Comedies provides the student of Shakespeare with examples of Shakespeare's art in dominant Renaissance dramatic forms and with some of his recurring thematic concerns. In addition study of the Histories and Comedies demonstrates Shakespeare's growth in the dramatic use of language. Plays for study will include the *Comedy of Errors*, *Two Gentlemen of Verona*, *Much Ado About Nothing*, *As You Like It*, *Twelfth Night*, *Richard III*, *Richard II*, *Henry IV*, Parts I and II, and *Henry V*.

EN 343 Shakespeare: Tragedies and Late Plays**3 crs.**

Shakespeare: Tragedies and late Plays offers the student of Shakespeare studies in the various dimensions of the tragic vision of man. In addition, study of the Late Plays provides the student with examples of dramatic works that proceed beyond the tragic dimension. Selected plays will include *Hamlet*, *King Lear*, *Othello*, *Macbeth*, *Antony and Cleopatra*, *Measure For Measure*, *The Winter's Tale*, and *The Tempest*.

EN 346 Southern Literary Renaissance**3 crs.**

Beginning with the Fugitives in the 1920's (Robert Penn Warren, Allen Tate, John Crowe Ransom, and Donald Davidson primarily) and their concern with the problem of the Southern writer's identity as born a Southerner and an artist, the focus will center on the writings of such contemporary figures as William Faulkner, Tennessee Williams, Katherine Anne Porter, Flannery O'Connor, Carson McCullers, Eudora Welty, and Peter Taylor.

EN 350 Modern English Novel**3 crs.**

A selective survey of major contributors to the English novel from Joseph Conrad through the school of the "Angry Young Men." Major attention will be given to the analysis of specific texts.

EN 353 Modern European Drama**3 crs.**

Main forces in Modern European drama starting with Ibsen.

EN 356 Modern American Drama**3 crs.**

Selected plays of dramatists from O'Neill to Albee.

EN 360, 361 The English Novel**3 crs. for each semester.**

The development of the English novel, including the works of Defoe, Richardson, Fielding, Smollett, Sterne, Austen, and Scott in the first semester, and Dickens, the Brontes, Thackeray, Eliot, Trollope, Conrad, and Hardy in the second semester.

EN 365 Victorian Prose and Poetry**3 crs.**

The major emphasis will be placed on the poetry of Tennyson, Browning, and Arnold, but the works of other nineteenth-century poets such as Hopkins and Hardy will also be read and discussed. The essays of Carlyle, Arnold, Newman, Huxley, and others will be read in conjunction with the poetry.

EN 366 Tennyson, Browning, and Arnold**3 crs.**

These major nineteenth century authors will be studied in some detail, with particular reference to the historical, social, and cultural milieu within which they wrote.

EN 367 English Literature of the Late Victorian and Edwardian Period**3 crs.**

The major writers of the late nineteenth and early twentieth centuries will be examined from an esthetic, social, and intellectual point of view with readings in such novelists as Gissing, James, Wilde, Beerbohm, Carroll, Wells, Hardy, Corvo, Forster, and Conrad, and such poets as Rossetti, Swinburne, Morris, Hopkins, and Yeats.

EN 370 Seventeenth Century Literature**3 crs.**

This course is an introduction to the prose and poetry of the Seventeenth Century in England, exclusive of Milton. Such writers as Donne, Jonson, Bacon, Burton, Browne, and Dryden will be examined, and various persistent elements, such as the classical influence, will be explored.

EN 380 Milton**3 crs.**

The main poetical works of Milton: *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*, the minor poetic works, and selected prose.

EN 383 Modern Irish Literature**3 crs.**

Irish writing from 1890 to the present, with special emphasis on the works of Yeats, Synge, O'Casey, Joyce, O'Conner, and O'Faolain.

EN 386 English Romantic Poets**3 crs.**

Selected poetry and prose of Wordsworth, Coleridge, Shelley and Keats will be studied with the principal object of understanding the character and modes of expression of each poet's imaginative vision. Consideration will be given to historical background and to developments in philosophy and esthetic theory which have a direct bearing on Romantic poetry.

EN 387 British Commonwealth Literature**3 crs.**

Literature of the British Commonwealth nations will be studied. In a given year, the emphasis may be on such literature as Canadian, African, Australian, or Indian.

EN 390 History of Literary Criticism**3 crs.**

The history of literary criticism from Aristotle to the present. Emphasis will be placed on those persistent esthetic, psychological, social, and cultural patterns which have helped shape the literature of our own age.

EN 391 Modern Literary Criticism**3 crs.**

Several twentieth-century approaches to literary analysis, interpretation, and evaluation. Particular attention will be given to literary concepts derived from psychoanalysis, sociology, anthropology, semantics, philosophy, and theology. Such topics as existentialist criticism, the "new criticism," and the theory of myth and symbol will be considered.

EN 393 Modern British Poetry**3 crs.**

The major British poets of the twentieth century, with particular emphasis on the works of Hopkins, Yeats, Eliot, and Thomas.

EN 394 Modern American Poetry**3 crs.**

The major American poets of the twentieth century, with particular emphasis on the works of Robinson, Frost, Crane, Auden, Williams, and Stevens.

EN 395 Studies in Recent American Poetry**3 crs.**

Intensive study of some of the major figures in American poetry of the past ten or fifteen years: Theodore Roethke, Robert Lowell, and John Berryman will certainly be included. Also, three or four poets to be selected from the following list: Richard Eberhart, Richard Wilbur, W. D. Snodgrass, W. S. Merwin, Sylvia Plath, James Wright, James Dickey, Randall Jarrell, Gary Snyder.

EN 397 Film Study: The Director's Art**3 crs.**

The course will offer an intensive study of the works of one or more directors who have significantly extended or added to film vocabulary.

EN 398 Film Study: Genres**3 crs.**

The course will focus on films that have contributed to the definition of such cinematic genres as the western, the gangster movie, the documentary, the light comedy, and others.

EN 400 Techniques of Literary Research 3 crs.

Research procedures, with special reference to the materials and methods of literary study and publication. Various critical approaches to literature will be examined, and some evaluation of scholarly procedure will be made.

EN 420 English Education Seminar 3 crs.

Limited in enrollment to seniors contemplating secondary school teaching. The problems of English education in a rapidly changing social, cultural, and intellectual environment. Reports, small group discussions, and meetings with professionals in the field.

EN 494 Seminar 3 crs.

The seminar will treat selected topics in literature and related areas of study.

EN 495 Seminar in English Literature 3 crs.

This seminar, limited to seniors, honors candidates, and graduate students, will pursue in depth certain themes and authors in English literature, the topic changing from year to year.

EN 496 Seminar in American Literature 3 crs.

This seminar, limited to seniors, honors candidates, and graduate students, will pursue in depth certain themes and authors in American literature, the topic changing from year to year.

EN 497 Seminar in World Literature 3 crs.

This seminar, limited to seniors, honors candidates, and graduate students, will pursue in depth certain themes and authors in world literature, the topic changing from year to year.

EN 499 Directed Study in English 1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF MODERN FOREIGN LANGUAGES

Assistant Professor Jacqueline Enos, Chairlady

Associate Professors: Robert Arruda, Robert Briggs, Joseph Giannini,
Wayne Judah

Assistant Professors: Anthony Cotugno, Dale Dawley, Lenore Padula,
Christiana Reordan, Mary Shapiro, Servando Tijerina, Barbara Ward.

The Modern Foreign Language Department offers students an opportunity to gain a practical working knowledge of one or more of six modern foreign languages. Students may choose any of these six languages offered by the department unless otherwise restricted by the requirements of their academic major. All students should check the specific foreign language requirement of their academic major.

The department currently offers majors in French or Spanish with academic minors possible in French, German, Spanish, Italian, Russian, and Portuguese. The department majors seek to develop a fluent command of the four language skills, and a broad acquaintance with the salient characteristics of the literature and civilization of the language being studied.

A grade of C or above in the 181-182 course sequence is required for continuation as a language major. 36 semester hours are required for a foreign language major. Foreign language majors are required to take all courses in numerical sequence, unless otherwise arranged with an advisor subject to approval by the head of the department.

For all prerequisites, equivalent course credit or preparation will be accepted.

French Major

LF-181-182, remaining courses to be completed from department offerings.
(LF-381 and LF-382 with a C or better if Secondary Education minor.)

Spanish Major

LS-181-182, remaining courses to be completed from department offerings.
(LS-281 and LS-282 with a C or better if Secondary Education minor.)

Language Minor

Language minors are required to take 18 semester hours beginning with the 151-152 level course. The choice and sequence of subsequent courses may be determined in consultation with the department head.

FRENCH

LF 101, 102 Elementary French **3 crs. for each semester.**
An introduction to the essentials of written and spoken French. Three periods weekly.

LF 151, 152 Intermediate French **3 crs. for each semester.**
Prq.: LF 102.
Stress on essential grammatical points, oral work, and reading knowledge of the language.

LF 181, 182 Advanced French **3 crs. for each semester.**
Prq.: LF 152.
A concentration on more advanced aspects of the spoken and written French language. Oral practice through individual classroom participation.

- LF 201 French Literature of the Middle Ages** **3 crs.**
 Prq.: LF 182.
 A survey of representative works of the Middle Ages in modern French translation.
- LF 231 Eminent Realists and Naturalists in 19th century French Literature in Translation** **3 crs.**
 A study of realism and naturalism (1850-1900), with special attention given to Flaubert, the Goncourts, Maupassant, Zola, and Huysmans.
- LF 241 French Literature of the Absurd in Translation** **3 crs.**
 A study of French "absurd" literature in translation, from Flaubert's *A Simple Heart* to "anti-literature" of the "new" novel. Emphasis on theatre.
- LF 252 Sixteenth Century French Literature** **3 crs.**
 Prq.: LF 201.
 A study of the poetry, prose, and theatre of the sixteenth century, noting the transition from the late Middle Ages through the Renaissance.
- LF 281 French Conversation and Civilization** **3 crs.**
 Prq.: LF 182.
 Improvement of oral expression and pronunciation. French Civilization discussion topics for vocabulary building and application of structures learned.
- LF 301 Seventeenth Century French Literature** **3 crs.**
 Prq.: LF 252.
 The principal historical events and representative authors and genres of France of the seventeenth century will be studied with the object of understanding Classicism as a literary movement.
- LF 352 Eighteenth Century French Literature** **3 crs.**
 Prq.: LF 301.
 The literary contributions of the Enlightenment and Encyclopedists to the French Revolution and pre-Romanticism.
- LF 381 Applied French Linguistics and Phonetics** **3 crs.**
 Prq.: LF 182.
 A linguistic approach to the sounds of the French language with emphasis on a mastery of the elements of correct standard pronunciation. Conducted in French.
- LF 382 Advanced French Composition and Grammar** **3 crs.**
 Prq.: LF 381.
 A thorough study of French grammar to develop written and oral proficiency in the French language.
- LF 401 Nineteenth Century French Literature** **4.5 crs.**
 Prq.: LF 352.
 Through representative works, the entire nineteenth century will be surveyed with special emphasis on principal literary movements: Romanticism, Realism, and Symbolism. Three periods weekly for three quarters.
- LF 451 Twentieth Century French Literature** **3 crs.**
 Prq.: LF 352.
 A discussion of literary trends and reading of well-known authors. Individual reports. Barres, France, Gide, Proust, Claudel, Romains, Sartre, Camus.
- LF 495 Seminar in French Literature** **3 crs.**
 Prq.: permission of the instructor.
 Primarily for French majors or minors of senior standing, Honors candidates or graduate students. The seminar will pursue, in depth, certain themes and authors in French literature. The topics will change from year to year. Offered as needed.

GERMAN**LG 101, 102 Elementary German 3 crs. for each semester.**

An introduction to the study of the German language. Emphasis on correct pronunciation and basic grammar. Three periods weekly.

LG 151, 152 Intermediate German 3 crs. for each semester.

Prq.: LG 102.

A systematic review of basic German grammar. Graded reading selections and an introduction to aspects of German culture.

LG 181, 182 Advanced German 3 crs. for each semester.

Prq.: LG 152.

Introduction to a more advanced level of the literature. Representative authors will be read and discussed.

LG 191, 192 Scientific German 3 crs. for each semester.

Prq.: LG 102.

An introduction to the reading and translating of scientific material. Open to science majors as a substitution for LG 151, 152.

LG 201, 202 Survey of German Literature 3 crs. for each semester.

Prq.: LG 182.

German literature from its earliest beginnings to the present day. Representative works of the principal literary periods will be read and discussed.

LG 282 German Conversation and Civilization 3 crs.

Prq.: LG 182.

Designed to develop further the student's command of spoken German. Discussion topics will center upon aspects of German civilization and culture.

LG 301, 302 Modern German Literature 3 crs. for each semester.

Prq.: LG 202.

Ideas and literary currents of the modern period as expressed in the works of representative authors.

LG 310 The Modern German Novel in Translation 3 crs.

The German novel since World War I with emphasis on works by Thomas Mann, Herman Hesse, Gunter Grass, Heinrich Boll.

LG 320 Contemporary German Drama in Translation 3 crs.

Trends in twentieth century drama before and after World War II including works by Bertold Brecht, Friedrich Durrenmatt, Peter Weiss, and others.

LG 330 Major German Writers in Translation 3 crs.

Selected works by Major German Writers.

LG 340 The German Novella in Translation 3 crs.

The novella as a literary genre and selected works by major writers.

LG 351 German Romanticism 3 crs.

Prq.: LG 202.

Romanticism as a literary movement. A study of its philosophical basis, themes and forms as reflected in representative works of the period.

LG 382 Medieval German Literature 3 crs.

Prq.: LG 202.

Reading and discussion of the principal works of the medieval periods, with particular emphasis upon the Middle High German authors and their works.

LG 401 The Age of Goethe and Schiller

4.5 crs.

Prq.: LG 202.

The Storm and Stress Period and Classical Period of German literature with a focus upon Goethe and Schiller as the leading representatives of these movements. Three periods weekly for three quarters.

LG 451 German Drama, Prose, and Poetry of the Nineteenth Century

4.5 crs.

Prq.: LG 202.

Representative writers of the century will be read and discussed with emphasis upon the inter-relationships of Romanticism, Realism and Naturalism as literary movements in 19th century German literature. Three periods weekly for three quarters.

ITALIAN

LT 101, 102 Elementary Italian

3 crs. for each semester.

An aural-oral approach to the grammar of the Italian language. Emphasis is on the mastery of correct pronunciation and of fundamental grammatical points to ensure a basic oral, reading, and written command of the language. Three periods weekly.

LT 151, 152 Intermediate Italian

3 crs. for each semester.

Prq.: LT 102.

A continuation of Elementary Italian, with stress on essential grammatical features, oral work, and reading and writing development in the language.

LT 181, 182 Advanced Italian

3 crs. for each semester.

Prq.: LT 152.

A review of basic grammar and presentation of more advanced structural elements. Stress on improvement of compositional and aural-oral skills. Varied cultural reading selections.

PORTUGUESE

LP 101, 102 Elementary Portuguese

3 crs. for each semester.

An introduction to the basic skills of reading and writing, and the development of aural comprehension and correct oral pronunciation. Three periods weekly.

LP 151, 152 Intermediate Portuguese

3 crs. for each semester.

Prq.: LP 102.

A review of basic grammar and pronunciation and a more advanced study of these two aspects of the language. Reading, writing, and oral proficiency will be stressed.

LP 181, 182 Advanced Portuguese

3 crs. for each semester.

Prq.: LP 152.

Stress on improvement of compositional and aural-oral skills. Literary texts from Brazilian and Portuguese literature.

RUSSIAN

LR 101, 102 Elementary Russian

3 crs. for each semester.

Simultaneous development of the four fundamental language skills. Classwork supplemented by laboratory drills. Three periods weekly.

LR 151, 152 Intermediate Russian

3 crs. for each semester.

Prq.: LR 102.

Consolidation of elementary Russian through review of basic elements, plus written and oral self-expression based on detailed readings of selected texts.

LR 181, 182 Advanced Russian

3 crs. for each semester.

Prq.: LR 152.

Progressive development of the student's language proficiency through reading of scientific and literary texts, oral practice, and written compositions.

SPANISH

- LS 101, 102 Elementary Spanish** **3 crs. for each semester.**
An introduction to the essentials of Spanish pronunciation and grammar. Reading, writing, aural and oral proficiency will be stressed. Three periods weekly.
- LS 151, 152 Intermediate Spanish** **3 crs. for each semester.**
Prq.: LS 102.
A review of basic grammar and correct pronunciation to further an aural-oral command of the language. Hispanic readings will be introduced.
- LS 181, 182 Advanced Spanish** **3 crs. for each semester.**
Prq.: LS 152.
A more detailed study of Spanish grammar. Vocabulary development, correct pronunciation, and improved aural-oral skills. Reading from Hispanic world.
- LS 201, 202 Survey of Spanish Literature** **3 crs. for each semester.**
Prq.: LS 182.
Major literary movements, works and authors of peninsular Spanish literature from earliest times to the present. Offered in alternate years with LS 251, 252.
- LS 251, 252 Survey of Spanish-American Literature** **3 crs. for each semester.**
Prq.: LS 182.
A representative study of the literature of the Colonial period, the independence period, the eighteenth century, Modernism, and the contemporary period. Offered in alternate years with LS 201, 202.
- LS 281 Advanced Composition** **3 crs.**
Prq.: LS 182.
Development of individual written expression. Utilization of literary texts as an approach to composition by focusing on vocabulary, analysis of style and context.
- LS 282 Spanish Phonetics and Conversation** **3 crs.**
Prq.: LS 281.
Improvement of oral proficiency by a systematic study of the sounds of correct pronunciation.
- LS 292 Spanish Civilization** **3 crs.**
Prq.: LS 182.
An introduction to the history, geography, social institutions, and culture of Spain. Assigned compositions.
- LS 301 The Golden Age of Spanish Literature** **3 crs.**
Prq.: LS 202.
A study of the poetry, prose and theatre from the second half of the sixteenth century to the Baroque period. Emphasis will be on the mystics. Gongora, Lope de Vega, Calderon, and Quevedo.
- LS 351 Cervantes** **3 crs.**
Prq.: LS 202.
A study of the man and his works, with special emphasis on Don Quixote. Professor Tijerina.
- LS 381, 382 The Middle Ages** **3 crs.**
Prq.: LS 202.
A study of the evolution of Spanish literature through the first half of the sixteenth Century. Romances, Poema del Cid, La Celestina, El Libro de Buen Amor.
- LS 401 Nineteenth Century Spanish Literature** **4.5 crs.**
Prq.: LS 202.
The Romantic and Realist Movements. Representative works of the novel, poetry, and drama. Caballero, Alarcon, Galdos, Clarin, Bazan, Ibanez, Duque de Rivas, Gutierrez, Espronceda, Larra. Three periods weekly for three quarters.

MODERN FOREIGN LANGUAGES

LS 451 Twentieth Century Spanish Literature

4.5 crs.

Prq.: LS 202.

The Spanish novel, essay, poetry and drama from the Generation of '98 to the present. Unamuno, Baroja, Azorin, Machado, Jimenez, Lorca, Casona, Cela. Three period weekly for three quarters.

FL 499 Directed Study in Foreign Language

1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF PHILOSOPHY AND RELIGIOUS STUDIES

Assistant Professor David Cheney, Chairman

Associate Professors: Milton Boyle, Joseph Corkery, Achille Joyal

Assistant Professors: William Berkson, Steven Sanders

PHILOSOPHY

Philosophical inquiry aims at clear, logical, critical thinking about a variety of perennial human concerns. These include questions about values, the nature of knowledge and truth, the meaning of life, the understanding of experience, the possibility of religious knowledge, and many others. The Department offers courses in the history of philosophy, the main problems of philosophy and the methods of philosophy as a mode of critical thinking.

Philosophy Minor

For a minor in philosophy, a student must complete six philosophy courses (18 credits). Interested students should contact the chairman in order to discuss an individual program relevant to his academic major.

PL 200 Scepticism, Knowledge, and Reality

3 crs.

An introduction to philosophy through an examination of the relationship between the knower and the known, including topics of perception, doubt, belief, the external world and religious knowledge.

PL 210 Human Conduct and Values

3 crs.

An introduction to philosophy through an examination of representative systems of value and moral propriety, including topics of freedom, the nature of moral obligation and moral judgments, and the concepts of good, right, value, and moral worth.

PL 220 Philosophy of Mind and Action

3 crs.

An introduction to philosophy through an examination of various conceptions of man, including topics of mind, persons, action, intention, and will.

PL 230 Social and Political Man

3 crs.

An introduction to philosophy through an examination of man as a social being, including topics of political obligation, justice, communication, law, social contract, liberty, sovereignty, and civil disobedience.

PL 310 Logic

3 crs.

An introduction to formal logic and analysis; study of propositions and syllogisms; introduction to symbolic logic; selected problems in the philosophy of logic and language.

PL 321 Contemporary Moral Philosophy**3 crs.**

Prq.: 3 semester hours in philosophy.

A critical study of selected problems, including the logic of moral discourse, description and evaluation, egoism and altruism, obligation and motivation, moral reasoning and moral practices, in view of contemporary formulations and solutions.

PL 323 Philosophy of Religion**3 crs.**

Prq.: 3 semester hours in philosophy.

A logical and conceptual analysis of religious discourse with emphasis on the concepts of God, guilt, miracle, evil, and religious experience; combined with an examination of the nature and justification of religious claims and the relation between faith and reason.

PL 324 Theory of Knowledge**3 crs.**

Prq.: 3 semesters in philosophy.

An exploration of problems concerning knowledge in light of contemporary solutions including the analytical clarification of the main epistemic concepts, such as knowledge, belief, certainty, evidence and justification.

PL 381 Ancient and Medieval Philosophy**3 crs.**

A study of the major philosophers of these periods, including the Pre-Socratics, Socrates, Plato, Aristotle, Augustine, Anselm, and Aquinas.

PL 382 Rationalism, Empiricism and Kant**3 crs.**

A study of the Rationalists, including Descartes, Spinoza, and Leibniz, and the Empiricists, including Hobbes, Locke, Berkeley, and Hume, especially in regard to the nature of ideas, the use of reason, and the scope and limits of knowledge; concluding in an examination of Kant's attempt to resolve the conflicts between these two movements.

PL 385 Nineteenth Century Philosophy**3 crs.**

A study of the main movements of this period, including Idealism, Positivism, Dialectical Materialism and the early existentialist revolt, with special emphasis on the works of Hegel, Schopenhauer, Royce, Mill, Marx, Kierkegaard, and Nietzsche.

PL 386 Contemporary Philosophy**3 crs.**

A study of the main movements of this period, including Pragmatism, Analytic Philosophy, and Existential Phenomenology, with special emphasis on the work of Whitehead, Dewey, James, Wittgenstein, Russell, Moore, Sartre, Husserl, and Heidegger.

PL 401 Philosophy of Natural Science**3 crs.**

Inquiry into the conceptual foundations of natural science, including topics of induction, causation and determinism, natural law, theoretical explanation, and concept formation.

PL 403 Philosophy and the Arts**3 crs.**

Inquiry into recurrent philosophical themes in literature and the fine arts, accompanied by an introduction to the fundamental problems of esthetics.

PL 410 Existentialism**3 crs.**

A critical study of the concepts of human existence, anxiety, freedom, decision; introduction to phenomenology; readings from Kierkegaard, Heidegger, Jaspers, Sartre, Camus.

PL 450 Philosophy Seminar**3 crs.**

Prq.: Consent of instructor.

Study of a particular philosopher and/or selected philosophical problems. Topics vary; course may be repeated.

PL 499 Directed Study in Philosophy

1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

RELIGIOUS STUDIES

A minor in Religious Studies is offered; interested students should contact the chairman of the Department of Philosophy and Religious Studies. The interdisciplinary nature of the study will be exploited by the coordination of courses offered by several departments of the college. Flexibility is desired and each student is encouraged to design his own program subject to his minor advisor's approval. The only requirements are (1) the completion of RE 100, Introduction to Religious Studies, (2) that at least three of the other four areas (II through V) be represented, and (3) that at least three hours in non-Western religion be completed.

Areas of study are as follows.

I. Introduction to Religious Studies, RE 100

II. History of Religion/Comparative Religion: The study of religion through consideration of the historical development and comparison of its institutions, beliefs and practices.

Current offerings: RE 201 Comparative Religion (Western)
RE 251 Religion in Contemporary America
AN 207 Primitive Religion
AN 208 Religion in the Cultures of Asia

III. Religious Literature: The study of religion through consideration of sacred literature from its cultural background, religious significance, and literary characteristics.

Current offerings: RE 221 Introduction to the Old Testament
RE 222 Introduction to the New Testament
EN 497 Seminar, Topics to be specified

IV. Religion & Philosophy: The study of religion through consideration of the philosophical and theological thought it has produced and influenced.

Current offerings: PL 323 Philosophy of Religion
PL 450 Seminar, Topics to be specified

V. The Scientific Study of Religion: The study of religion through the vehicle of the sciences, especially Anthropology, Psychology, and Sociology.

Current offerings: AN 207 Primitive Religion
SO 204 Sociology of Religion

RE 100 Introduction to Religious Studies

3 crs.

Definition of "religion" in terms of man's religious belief, experience and expression. The significance of religion in the life and culture of man, including the liberating and restricting forces of religious belief. Emphasis on the contemporary situation with examples from earlier cultures.

RE 201 Comparative Religion

3 crs.

An examination of the origins, development, and basic tenets of the major world religions from earliest times to the moslem era, with particular emphasis on ancient Near Eastern religions: Judaism, Christianity, and Islam.

RE 221 Introduction to the Old Testament

3 crs.

Historical and cultural background; literature and interpretation of the Old Testament.

RE 222 Introduction to the New Testament

3 crs.

Historical and cultural background; literature and interpretation of the New Testament.

RE 251 Religion in Contemporary America

3 crs.

A consideration of the organization, practices and beliefs of current American religious organizations set in their historical and cultural perspectives. Roman Catholic, Eastern Orthodox, Jewish and Protestant denominations will be included in the study. The role of the church in the modern American community will be assessed and recent trends within and without the church will be discussed. The study will include such recent theological topics as Honest-to-God, God is Dead, The Theology of Hope, The Secular City and the so-called Jesus movement.

RE 499 Directed Study in Religious Studies

1-3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.



DIVISION OF NATURAL SCIENCES AND MATHEMATICS

DIRECTOR: DEAN HILFERTY

Biological Sciences

Chemical Sciences

Earth Sciences & Geography

Mathematics

Physics

The Division of Natural Sciences and Mathematics offers majors and minors in biology, chemistry, chemistry-geology, earth sciences, geography, mathematics, and physics. An interdisciplinary minor in urban affairs, as well as pre-dental, pre-medical, and oceanographic programs are also available. Additional information may be found under each department as well as in the section of this Catalog entitled *Interdepartmental Programs*.

In addition, Departments of the Division offer courses designed to give students not majoring in either the natural sciences or mathematics a general introduction to these disciplines which are of paramount importance to twentieth century man.

DEPARTMENT OF BIOLOGICAL SCIENCES

Professor Kenneth Howe, Chairman

Commonwealth Professor and Dean of the Graduate School Frank Hilferty.

Professors: James Brennan, Elizabeth Cirino, Lawrence Mish, Walter Morin,
William Wall

Associate Professor: Walter Hewitson.

Assistant Professors: John Jahoda, Florian Muckenthaler, Harold Schaefer.

Two programs leading to the degree of Bachelor of Arts or Bachelor of Science are offered by the Department: Plan I - Broad-Based Biology Program, and Plan II - Career/Discipline-Oriented Program. Both are designed to prepare students for teaching, research, graduate school, or work in a wide variety of applied fields. Plan I is especially suitable for persons going into teaching, graduate work, or other endeavors requiring a comprehensive foundation in biology. Plan II provides a sound training for those planning careers as professional biologists immediately following graduation, as well as for those who are going on to advanced studies. The Career/Discipline-Oriented Program is especially appropriate for persons interested in a wide variety of fields such as technical work and/or research in medicine, health, environmental studies and marine investigations, where specific technical training or specialization is indicated.

A minor is also provided for students in fields related to biology or for those interested in a better understanding of the life sciences. Elementary Education majors may augment their training by taking advantage of a special concentration in biology. The biology minor and the concentration for Elementary Education majors are designed so that they may be fitted to the needs and objectives of each student, and programs are planned in consultation with the Chairman of the Department of Biological Sciences.

The Department participates in the Interdepartmental Programs for students preparing for careers in medicine, dentistry, or oceanography. (See the Catalog section entitled *Interdepartmental Programs*.) Participation in an Interdepartmental Program may be accomplished under either Plan I or Plan II of the Biology major.

In addition, the Department of Biological Sciences takes part in the Marine Sciences Consortium conducted at the Massachusetts Maritime Academy, which makes it possible for students to augment their degree programs with a wide variety of Marine Sciences.

Each student with a major in biology has an academic adviser from the faculty of the Department of Biological Sciences and may also consult with the Departmental Chairman. The Chairman of the Department of Biological Sciences acts as an academic adviser for biology for students taking a minor or a concentration in the Department, and they should consult him on a regular basis.

Biology Major

Plan I - Broad-Based Biology Program:

BI-103-104 (or equivalent), BI-281, BI-282, BI-283, BI-292 (or BI-294),
BI-381, BI-393, BI-395, BI-397, BI-401, BI-404 and BI-411.
CH-131-132* MA-103-104* PH-181-182* and ES-413.

The Chemistry and mathematics courses should be taken in the freshman year.

Biology majors under Plan I must also successfully complete work in one foreign language through the intermediate level. Those considering graduate work are strongly advised to select German.

Plan II - Career/Discipline-Oriented Program:

BI-103-104 (or equivalent), BI-281 (or BI-282), BI-292 (or BI-294) BI-381, BI-393, BI-395, BI-397, BI-411, CH-131-132 (or CH-141-142) CH-343-344; MA-101-102 (or MA 103-104), PH-181-182 (or PH-243-244.)

A minimum of four additional biology courses selected in consultation with a faculty adviser.

In special cases students may take additional credit in biology, but only with the approval of the academic adviser and the Chairman of the Department, and subject to review by the Academic Dean. The inorganic chemistry and mathematics courses should be taken in the freshman year.

Under Plan II, language requirements will be decided in consultation with the faculty adviser. As in Plan I, German is recommended for students planning future graduate work.

The Department recommends that electives be used by: Selecting a minor in a discipline other than biology; participation in one of the Interdepartmental Programs; or by a customized program made up of selected courses. All programs should be planned in consultation with the academic adviser.

*Students with appropriate backgrounds and the concurrence of their Departmental adviser may enroll in more advanced courses in Chemistry, Physics, and Mathematics than those cited above.

Biology Minor

Students interested in a minor in the Department of Biological Sciences should consult with the Chairman of the Department to prepare appropriate records. The students must satisfactorily complete the following:

A one-year course (6 semester hours) in General Biology, which may be satisfied by BI 101-102; BI 103-104; BI 105-106; or BI 107-108.

A minimum of 12 semester hours of additional courses in biology, planned in consultation with the Chairman of the Department of Biological Sciences. Any course offered in the Department may be considered in planning this requirement, providing appropriate course prerequisites have been earned.

Biology Concentration

Students interested in this concentration should meet with the Chairman of the Department of Biological Sciences to prepare appropriate records. These students must satisfactorily complete:

A one-year course (6 semester hours) in General Biology, which may be satisfied by BI 101, 102; BI 103-104; BI 105-106; or BI 107-108.

BIOLOGICAL SCIENCES

A minimum of nine semester hours of additional courses in biology, which will be selected in consultation with the Chairman of the Department of Biological Sciences. Any course offered in the Department may be considered in planning this requirement, providing appropriate course prerequisites have been earned.

Advanced Placement

Entering students who have unusually broad backgrounds in Biology will usually be permitted to enroll in courses beyond the 100 series if they meet the Departmental requirements for advanced placement. Persons enrolled in biology programs who feel they may be eligible for advanced placement, or who have earned advanced placement in other ways, should consult with the Chairman of the Department of Biological Sciences.

BI 101 Introduction to the Biological Sciences I

3 crs.

The botanical aspects of biology with emphasis on the structure and function of cells, tissues, organs, and the plant body together with a general survey of the plant kingdom. Such topics as photosynthesis, water relations, respiration, growth, reproduction, heredity, disease, and evolution are included. BI 101, 102 are coordinated so that various concepts common to plants and animals are taught in one semester or the other and not duplicated. Students are expected to complete both courses. Two lectures and one two-hour laboratory period weekly.

BI 102 Introduction to the Biological Sciences II

3 crs.

The zoological aspects of biology with emphasis on such topics as: the nature of sciences and scientific thinking; the structure and physiology of cells, tissues, organs, and organ-systems; embryogeny; heredity; ecological and phylogenetic interrelationships; and a general survey of the animal kingdom. BI 101, 102 constitute a coordinated course in general biology, and students are expected to complete both courses. BI 102 may be taken before BI 101. Two lectures and one two-hour laboratory period weekly.

BI 103-104 Principles of General Biology

3 crs. per semester

Prq.: BI 103 is prerequisite for BI 104

A detailed study of biological processes and principles at the cellular and organismal levels, including such topics as the chemical basis of life, structure and function of plants and animals, development, ecology, and evolution. Primarily for science majors. Two lectures and one two-hour laboratory period weekly.

BI 105-106 An Appreciation of Modern Biology

3 crs. per semester

Prq.: BI 105 is prerequisite for BI 106.

The major concepts of biology and fundamental principles which underlie phenomena of life. Consideration given to plant and animal growth, survival, reproduction, change, adaption, integration and utilization of environmental resources, and to man's role in the biosphere. Primarily for non-science majors. Two lectures and one two-hour laboratory period weekly.

BI 107-108 Concepts of Biology

3 crs. per semester

Prq.: BI 107 is prerequisite for BI 108.

A concept-oriented study of biology through an investigative approach in the classroom and the laboratory. A questioning attitude and creative thinking about natural phenomena are encouraged and demonstrated through the use of activities involving familiar living organisms. Primarily for Elementary Education and Special Education majors. Two lectures and one two-hour laboratory period weekly.

BI 212 The Biological Environment 3 crs.

Emphasis is placed on current and future problems associated with man in his environment. The biological relationship between man and other living forms is discussed in terms of man's historical and present role in nature. Topics to be covered include: various aspects of pollution, population, and environmental disturbances. This course is not open to biology majors. Three lectures weekly.

BI 281 Invertebrate Zoology 3 crs.

Prq.: BI 101-102 (or equivalent) or consent of the instructor.
The biology of invertebrates from a phylogenetic standpoint with emphasis on taxonomy, morphology, history, physiology, development, and natural history. Representatives of the principal classes of each phylum are studied. Two lectures and one two-hour laboratory period weekly.

BI 282 Comparative Chordate Anatomy 3 crs.

Prq.: BI 101-102 (or equivalent) or consent of the instructor.
An ontogenetic and phylogenetic survey is made of chordate gross anatomy, supplemented by laboratory dissections of representative species. Emphasis is placed on the changes in chordate structure and biology that comprise their evolution, and an interpretation made of the whole series of change in the light of our modern knowledge of how evolution is brought about. Two lectures and one two-hour laboratory period weekly.

BI 283 Field Natural History 2 crs.

Prq.: BI 101-102 (or equivalent) or consent of the instructor.
The identification of local plants and animals with emphasis on the natural history of common animals, dominant biotic communities of Southeastern Massachusetts, general morphology and taxonomy of organisms, and techniques of collecting and preserving. One one-hour lecture and one two-hour laboratory period weekly.

BI 292 Plant Anatomy 3 crs.

Prq.: BI 101-102 (or equivalent) or consent of the instructor.
A comparative study of the structural, functional, development and phylogenetic characteristics of cells, tissues, and organs in the vascular plants with emphasis on the angiosperms. Two lectures and one two-hour laboratory period weekly.

BI 294 Plant Morphology 3 crs.

Prq.: BI 101-102 (or equivalent) or consent of the instructor.
A survey of the plant kingdom from the Monera through the Angiosperms with emphasis on evolutionary adaptations associated with each group and phylogenetic relationships between the divisions as reflected in present day classification systems. Two lectures and one two-hour laboratory period weekly.

BI 312 Heredity and Human Endeavor 3 crs.

Prq.: BI 101-102 (or equivalent) or consent of the instructor.
The principles of genetics which are important to an understanding of the heredity mechanism in man. Individual differences in relation to gene-environment interaction and the role of heredity in education, governance, and society. Primarily an elective for non-science majors. Three lectures weekly.

BI 381 General and Comparative Physiology 3 crs.

Prq.: BI 101-102; (or equivalent) CH 131-132; PH 181-182; or consent of the instructor.
Physiological principles concerned in irritability, contraction, circulation, gas exchange, excretion, and hormonal regulation. Two lectures and one two-hour laboratory period weekly.

BI 385 Mammalian Physiology 3 crs.

Prq.: BI 102 or consent of the instructor.
General physiological principles and their application to the human body. Two lectures and one two-hour laboratory period weekly.

BI 393 Genetics

3 crs.

Prq.: BI 101-102 (or equivalent); MA 103-104; or consent of the instructor.

Analysis of the basic principles underlying heredity and the mechanisms involved in the replication, recombination, mutation, variation and expression of genetic material in representative plant, animal and microbial systems. Two lectures and one two-hour laboratory period weekly.

BI 395 Microbiology

3 crs.

Prq.: BI 101-102 (or equivalent); CH 131-132; or consent of the instructor.

An introduction to the structure, function, and ecology of microorganisms with emphasis on bacteria and viruses. Two lectures and one two-hour laboratory period weekly.

BI 397 Plant Physiology

3 crs.

Prq.: BI 101-102 (or equivalent); CH 131-132; or consent of the instructor.

The growth and function of plants including cellular physiology, water relations, metabolism, respiration, photosynthesis, nutrition, growth regulation, and the influence of environment. Two lectures and one two-hour laboratory period weekly.

BI 401 Seminar in Biology

1 cr.

Prq.: consent of the instructor.

In-depth consideration of current problems and research in the biological sciences. One period weekly for the first, second and fourth quarters.

BI 404 Biological Evolution

2 crs.

Prq.: BI 393, or consent of the instructor.

The theory of evolution and the operation of evolutionary forces as related to modern taxonomy, with emphasis on such topics as mutation, variation, hybridization, polyploidy, isolation, natural selection, and population genetics. Intensive course: four lecture periods per week for one quarter.

BI 411 Ecology

3 crs.

Prq.: BI 281, 283, 292, 393, 397; or consent of the instructor.

The dynamics and evolution of populations, communities, and eco-systems. Students become acquainted with the communities of Southeastern Massachusetts through field studies. Two lectures and one two-hour laboratory period weekly for first and fourth quarters.

BI 420 Developmental Biology

3 crs.

Prq.: Any one-year sequence General Biology course; CH 131-132; or consent of the instructor.

A study of developmental processes at different levels of organization with emphasis on animal development. Topics include gametogenesis, fertilization, yearly embryonic development, organogenesis, differentiation, growth and regeneration. Two one-hour lectures and one two-hour laboratory period weekly.

BI 427 Cytology

3 crs.

Prq.: Any one-year sequence General Biology course, or consent of the instructor.

Cellular morphology and organization including descriptions of major intracellular processes and the functional significance of cellular structures. Two one-hour lectures and one two-hour laboratory period weekly.

BI 499 Directed Study in Biology

1-3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF CHEMICAL SCIENCES

Professor Wilmon Chipman, Chairman

Professor Henry Daley, Jr.

Associate Professors: Vahe Marganian, Margaret Souza

Assistant Professors: Joseph Pagano, Kenneth Sumner

The Department of Chemical Sciences is on the list of approved schools of the American Chemical Society. The department offers two major programs in Chemistry and also a Chemistry-Geology major jointly with the Department of Earth Sciences. The first major offered by the department, the major in Professional Chemistry, is designed for students who plan to go on to graduate work in chemistry or to do research in the chemical industry. The courses offered in this program meet the requirements of the American Society for an approved major. Satisfactory performance in this program (B average) will give the student the professional preparation required for an assistantship or fellowship in graduate school. The second major, the major in Chemistry, is designed for students who wish to prepare for such fields as medicine, dentistry, the chemical industry, secondary school teaching, chemical sales work, pharmacy, oceanography, environmental sciences, sanitation chemistry, or veterinary science. Only a minimum number of chemistry courses are required so that a program suited to an individual's interests may be worked out with the student's faculty advisor. Students interested in medicine or dentistry should consult the section of the catalog describing the pre-medical and pre-dental programs. Attention is called to the *Interdepartmental Programs* in Oceanography.

Professional Chemistry Major

CH 100, 141-142 (or 131-132), 241-242, 343-344, 381-382, 441 or 442, 444, 450; MA 101-102, 201, 316; PH243-244, 387; LG 191-192 or LR 151-152 or the equivalent. (LF 151-152 may be substituted for LG 91-192 or LR 151-152 with the written permission of the department.)

Chemistry Major

CH 100, 141-142 (or 131-132), 242, 343-344, 381-382; MA 101-102 (or MA 103-104 with the written permission of the department); PH 243-244 (or PH 181-182 with the written permission of the department); a one-year sequence in a foreign language at the intermediate level or the equivalent.

Chemistry Minor

18 credits in chemistry, exclusive of CH 200.

Physical Sciences Minor

18 credits in chemistry and physics, exclusive of CH 200 and PH 200.

Chemistry Concentration

9 credits in chemistry, exclusive of CH 200.

Physical Sciences Concentration

9 credits in Chemistry and Physics, exclusive of CH 200 and PH 200.

CHEMICAL SCIENCES

Additional Comments on Requirements:

The normal freshman program for a student interested in either chemistry major consists of CH 100, CH 141-142, MA 101-102, and six credits toward the general education requirements. A student need not decide between the two chemistry majors until the second semester of his sophomore year. Students completing the Professional Chemistry major will meet the requirements for certification of the American Chemical Society.

CH 100 Computer Science in Chemistry

1 cr.

Introduction to computer programming as used in Chemistry. Particular emphasis will be on applications of Fortran for statistical studies in the Chemistry laboratory.

CH 131, 132 General Chemistry with Qualitative Analysis I-II

3 crs. for each semester.

The elements and their compounds, with emphasis on structure and its relation properties. CH 131 is prerequisite to CH 132. Two lecture periods and one two-hour laboratory period weekly.

CH 141, 142 Inorganic Chemistry with Qualitative Analysis I-II

4 crs. for each semester.

Theoretical inorganic chemistry with emphasis on mass-energy relationships in terms of structure and physical laws. Laboratory work emphasizes quantitative techniques. CH 141 is prerequisite to CH 142. Three lecture periods and one four-hour laboratory period weekly.

CH 200 Survey of Chemistry

3 crs.

The fundamental laws of chemistry are studied together with their application to elements and compounds, reactions and properties. Two lecture periods and one two-hour laboratory period weekly.

CH 202 Chemistry In Everyday Life

3 crs.

A lecture demonstration course on the application of chemistry to selected topics that an individual encounters in his daily life. Sample topics are: a) colloids and their relationship to foods and air pollution; b) acids, bases and pH; the effects of fertilizers; c) drugs; the nature of various chemical classes and their chemical effects on the human body. 3 hours lecture. (Because of the demonstrations class enrollment must be limited to 40 students).

CH 241 Inorganic Quantitative Analysis

3 crs.

Prq.: CH 132 or CH 142.

The classical and modern methods for the volumetric and gravimetric determination of elements and groups. Two lecture periods and one four-hour laboratory period weekly.

CH 242 Intermediate Inorganic Chemistry

3 crs.

Prq.: CH 132 or CH 142.

The descriptive chemistry, as well as synthesis and reactions, of nontransitional elements and their compounds are studied systematically. Correlations of structure and properties are explained on the basis of modern theories.

CH 280 Physical Chemistry for the Life Sciences

3 crs.

A study of the laws governing the physical and chemical behavior of compounds of primary interest to students in the Life Science fields. Particular application will be made to the thermodynamics, kinetics and equilibria involved in compounds of biological interests.

CH 343, 344 Organic Chemistry I-II**4 crs. for each semester**

Prq.: CH 132 or CH 142 and consent of the instructor.

A survey of the chemistry of organic compounds organized in terms of structure, mechanism of organic reactions, and synthesis. CH 343 is prerequisite to CH 344. Three lecture periods and one four-hour laboratory period weekly.

CH 381, 382 Physical Chemistry I-II**4 crs. for each semester.**

Prq.: CH 132 or CH 142; MA 102.

The laws governing the physical and chemical behavior of compounds. CH 381 is prerequisite to CH 382. Three lecture periods and one four-hour laboratory period weekly.

CH 384 Physical Chemistry II**2 crs.**

Prq.: CH 381.

The alternative to CH 382 for students who elect to student teach during the second semester. Differs from CH 382 by the omission of all material on quantum chemistry. Three lecture periods and one four-hour laboratory period weekly for one quarter.

CH 390 Research Problems in Chemistry**Credits arranged.**

Prq.: consent of the Department.

Special projects for advanced students desiring individual instruction in the methods of chemical research. Hours arranged.

CH 392 Laboratory Techniques**3 crs.**

Special techniques used in the research laboratory, such as glass-blowing, vacuum line technique, vacuum distillation, dry-box operations and advanced synthetic techniques. Hours arranged.

CH 440 Advanced Organic Chemistry**3 crs.**

Prq.: CH 344, and consent of the instructor.

Selected topics in advanced organic chemistry, such as physical organic chemistry, alicyclic and heterocyclic chemistry, natural products, and advanced synthetic methods. Hours arranged.

CH 441, 442 Qualitative Organic Analysis I-II**3 crs. for each semester.**

Prq.: CH 344.

The reactions of organic compounds with emphasis on those of importance for classification and identification. Laboratory work involves the identification of both simple compounds and mixtures. One lecture period and one six-hour laboratory period weekly.

CH 444 Advanced Inorganic Chemistry**3 crs.**

Prq.: CH 382.

The topics of group theory, stereochemistry, ligand field theory, molecular orbital theory, synthesis and kinetics of reactions as applied to transition metal elements will be treated in detail. CH 382 may be taken concurrently. Hours arranged.

CH 450 Instrumental Analysis**3 crs.**

Prq.: CH 382

Theory and practical application of instrumental methods are applied to chemical analysis; including pH measurements, electro-deposition, potentiometry, crystallography, mass spectrometry and spectroscopy. CH 382 may be taken concurrently. Two lecture periods and one four-hour laboratory period weekly.

CH 461, 462 General Biochemistry I-II**3 crs. for each semester.**

Prq.: CH 344 and consent of the instructor.

A survey of the chemical components of living matter and the major processes of cellular metabolism. Two lecture periods and one four-hour laboratory period weekly.

CH 480 Special Topics in Physical Chemistry**3 crs.**

Prq.: Ch 382 and consent of the instructor.

Topics of an advanced nature in physical chemistry will be selected with an emphasis on recent development in the field. Possible topics: N.M.R., E.S.R., elementary quantum mechanics, statistical thermodynamics.

CH 499 Directed Study in Chemistry**1-3 crs.**

Prq.: Consent of the department.

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF EARTH SCIENCES AND GEOGRAPHY

Professor: Emanuel Maier, Chairman

Professors: Robert Boutilier, Ira Furlong, Agrippina Macewicz

Associate Professors: Richard Enright

Assistant Professors: Paul Blackford, Robert Dillman, Marilyn Furlong, Reed Stewart

Instructor: Robert Hoekzema

The Department of Earth Sciences and Geography offers three separate fields of concentration: Geography, Geology, and Earth Sciences.

Modern laboratory equipment enables the department to offer investigation-oriented laboratory experience. This equipment includes: an X-Ray diffractometer with powder cameras; thin section equipment; polarizing and stereoscopic microscopes; atomic absorption spectrophotometer; seismic refraction unit; weather station; two telescopes; a theodolite, surveying equipment, cartographic laboratory and proton precession magnetometer.

Attention is called to Interdepartmental Programs in Chemistry-Geology, Oceanography, and Urban Affairs.

GEOGRAPHY

The geography major is designed to give a student knowledge and appreciation of the physical and cultural attributes of the world in which he lives and how they interact with one another. Career opportunities for graduates include government work as geographers or cartographers, teaching, and in conjunction with the urban affairs minor, employment in regional and city planning departments.

Geography Major

ES-181-182, ES-304, ES-315, ES-362, ES-471

Two from: ES-192, ES-194, ES-301, ES-303, ES-306, ES-484

Four additional geography courses including at least one in regional geography.

MA-103, MA-104 (recommended), MA-110

A one-year sequence of foreign language study at the intermediate level, or its equivalent.

EARTH SCIENCE

The major in Earth Sciences aims to introduce students to the various sciences that relate to the physical aspects of the earth and the universe. Career opportunities for graduates exist primarily in teaching. Students are also prepared for government service, environmental work relating to impact studies, and with additional graduate study; for work in engineering mining or petroleum geology.

Earth Science Major

ES-181, ES-192, ES-301 or ES-302, ES-303, ES-306, ES-372, ES-463, ES-484
Three additional courses selected in conjunction with the major advisor.

MA-103 - MA-104 (recommended)

One year of Chemistry

One year of physics or biology

A one-year sequence of foreign language study at the intermediate level or its equivalent.

Earth Science — Geology

The program in geology prepares students to understand the physical aspects of the earth and the processes which act upon it. Students are also prepared for government service, environmental work relating to impact studies, and with additional study for work in engineering mining or petroleum geology.

ES-181, ES-192, ES-372, ES-463, ES-475, ES-483, ES-484

Four additional courses selected in conjunction with the major advisor.

MA-103 - 104, or MA-101 - 102

One year of chemistry

One year of physics or biology

A one-year sequence of foreign language study at the intermediate level, or its equivalent.

Not more than one "D" for a semester course shall be accepted to fulfill the requirements for all programs.

GEOGRAPHY AS SOCIAL SCIENCE

ES 210 War, Peace **3 crs.**

An introduction to open-ended research and discussion to discover non-lethal resolution of conflicts between groups of human beings in a finite world.

ES 252 Geography of Anglo-America **3 crs.**

Prq.: ES 182 or ES 200, or consent of the instructor.

A description and analysis of the relationships between relevant physical and cultural features of regions in the United States and Canada.

ES 261-262 World Regional Geography **3 crs. for each semester**

Geographical context of current social, economic and political problems in Europe, the U.S.S.R., the Orient, the Middle East, the Pacific World, Africa, Latin America, and Anglo-America. Geographical features characteristic of each country and their relationship to a functioning political and economic unit. Either semester may be taken independently.

EARTH SCIENCES AND GEOGRAPHY

ES 353 Urban Geography 3 crs.

Prq.: consent of the instructor.

Geographic aspects of the city including location, function, land use patterns, and tributary areas.

ES 358 Geography of Latin America 3 crs.

Physical and cultural patterns of selected countries of South America. Emphasis on current economic and political problems.

ES 362 Economic Geography 3 crs.

Prq.: consent of instructor.

Simple models and frameworks of the various ways in which man organizes his economic activity. Problems of spatial structure, arrangements and patterns of economic activity.

ES 451 Geography of Europe 3 crs.

Prq.: ES 182 or ES 200, or consent of the instructor.

The character of the natural and cultural environments of the geographic regions of Europe.

ES 452 Geography of Asia 3 crs.

The physical and cultural patterns of selected countries of Asia.

ES 461 Geography of Africa 3 crs.

The physical and cultural features of the African continent with special reference to the emerged political and regional patterns.

ES 473 Political Geography 3 crs.

Variation of politically organized areas and their relationship to each other. Political behavior from the viewpoint of ethology, i.e., territoriality and aggression.

EARTH SCIENCES AND PHYSICAL GEOGRAPHY

ES 181 Physical Geology 3 crs.

The constitution of the earth and the processes acting on and within it. Field trips. May be followed by either ES 182 or ES 192. Two lecture periods and one two-hour laboratory period weekly.

ES 182 Physical Geography 3 crs.

Selected elements of man's environment such as the atmosphere, climate, soils, and vegetation. Man's role in altering these elements. Field trips. Two lecture periods and one two-hour laboratory period weekly.

ES 192 Historical Geology 3 crs.

Prq.: ES 181.

The origin and evolution of the earth and the life upon it. Two lecture periods and one two-hour laboratory period weekly.

ES 194 Environmental Geology 3 crs.

Waste disposal, slope stability, shoreline and hydrologic problems, seismic and perma frost conditions and other topics as they pertain to the geologic environment in selected physiographic provinces of North America will be studied.

ES 196 Geography of Environmental Problems I 3 crs.

Interaction between man and his physical environment through the analysis of selected problems in population ecology, atmospheric pollution and climatic change, water resource characteristics and distribution, soil contamination and erosion, and perception of environmental hazards for human settlement such as hurricanes, drought, floodplains, coastal erosion, earthquakes, and landslides.

ES 200 Survey of Physical Geography 3 crs.

Man-land relationships and the interaction of man with his total environment, including its landforms, atmosphere, climate, vegetation, and soils. Designed especially for students working for a B.S. degree in Elementary Education. Two lecture periods and one two-hour laboratory period weekly.

ES 301 Astronomy I 3 crs.

Prq.: MA 103-104 or consent of instructor.

A study of the earth, moon, planets, sun, and other stars and galaxies. New finding of radio astronomy and the uses of earth satellites. Day and evening observations.

ES 302 Astronomy II 3 crs.

Prq.: MA 103-104 or consent of instructor.

Stars, galaxies, stellar evolution, instrumentation, and cosmology. Day and evening observation.

ES 303 Meteorology 3 crs.

Prq.: ES 182, or ES 200, or consent of the instructor.

Study of the basic atmospheric processes that result in weather, and regional weather systems. Basic instrumentation and practice in observing, data presentation, and interpretation of weather maps. Two lecture periods and one two-hour laboratory period weekly.

ES 304 Climatology 3 crs.

Prq.: ES 182, or 200, 303, or consent of the instructor.

Study of the elements and controls of climate emphasizing their effect on man and the environment, and man's response to and modification of climate. The world distribution of climatic regions. Instrumentation and practice in observing, data, presentation and analysis.

ES 305 Introduction to Oceanography I 3 crs.

Prq.: BI 101, BI 102, or consent of the instructor.

Survey of marine life forms and of the chemistry of seawater.

ES 306 Introduction to Oceanography II 3 crs.

Prq.: MA 101, 102, or 103 and MA 104 or consent of the instructor.

Ocean water temperature, circulation, salinity, instruments and methods of investigation.

ES 361 Geography of Environmental Problems II 3 crs.

Environmental problems are considered in this course from the geographer's point of view, problems such as population densities and distribution, balanced land use and its philosophic, esthetic, and scientific basis, the circulation of goods and people, and a comparison of levels of development.

ES 372 Mineralogy 4 crs.

Prq.: ES 181 and CH 132.

Geometrical and X-ray crystallography followed by the determinative mineralogy of ore and rock-forming minerals. Two lecture periods and two, two-hour laboratory periods weekly.

ES 373 Optical Mineralogy 3 crs.

Prq.: ES 372

Principles of optical crystallography. Measurement of optical constants with the polarizing microscope. One lecture period and two, two-hour laboratory periods weekly.

ES 374 Optical Petrology

3 crs.

Prq.: ES 373.

Systematic study of rocks and rock-forming minerals with emphasis upon the use of the polarizing microscope. Interpretation of mineral assemblages, texture and structures, problems of petrogenesis. One lecture period and two, two-hour laboratory periods weekly.

ES 405 Synoptic Meteorology

3 crs.

Prq.: ES 303.

Investigation of world and local air systems, air masses, and fronts. Weather maps, upper air charts, and basic forecasting techniques. Two lecture periods and one, two-hour laboratory period weekly.

ES 413 Survey of Physical and Historical Geology

3 crs.

The structure and history of the earth as deduced from the study of life forms and their physical environment. Two lecture periods and one, two-hour laboratory period weekly. For Biology majors only.

ES 462 Geology of North America

3 crs.

Prq.: ES 181.

Physiographic provinces of North America in terms of geomorphology and structural relationships.

ES 463 Petrology

3 crs.

Prq.: ES 372.

Megascopic and microscopic classification of rocks and an introduction to petrogenesis. One lecture period and two, two-hour laboratory periods weekly.

ES 464 Economic Geology I

3 crs.

Prq.: ES 181.

Geochemical and physical processes that produce economic mineral deposits. Two lecture periods and one, two-hour laboratory period weekly.

ES 465 Economic Geology II

3 crs.

Study of selected major metallic and non-metallic deposits, energy sources and hydrologic reserves. Methods of extraction and the resulting environmental impact. Two lecture periods and one, two-hour laboratory period weekly.

ES 466 Glacial Geology

3 crs.

Prq.: ES 181.

The mechanics of glacial origin and movement, and the erosive and depositional features produced. Emphasis on the Pleistocene of North America. Two lecture periods and one, two-hour laboratory period weekly.

ES 472 Research in Earth Sciences or Geography

3 crs.

Preparation of a research paper in the Earth Sciences.

ES 475 Paleontology

3 crs.

Prq.: ES 181, 192 or consent of the instructor.

A survey of the fossil record stressing the most important invertebrate and vertebrate phyla and their environmental relationships. Two lecture periods and one, two-hour laboratory period weekly.

ES 476 Paleoenvironmental Reconstruction

3 crs.

Prq.: ES 181, 192 or consent of the instructor.

Introduction to modern concepts and principles in sedimentology, paleoecology, and correlation: lithostratigraphic and biostratigraphic classification and interpretation of depositional and organic environments. Two lecture periods and one, two-hour laboratory period weekly.

ES 483 Structural Geology 3 crs.

Prq.: ES 181.

Analysis and origin of rock structures. Two lecture periods and one, two-hour laboratory period weekly.

ES 484 Geomorphology 3 crs.

Prq.: ES 181 or consent of the instructor.

Relationships between gradational and tectonic forces and the resulting surface configuration of the earth. Two lecture periods and one, two-hour laboratory period weekly.

ES 499 Directed Study in Earth Science or Geography 1-3 crs.

Prq.: Consent of the Department.

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

TECHNIQUE COURSES FOR GEOGRAPHY OR EARTH SCIENCE

(Open primarily to majors)

ES 316 Cartography 3 crs.

Theory and practice in the design and drafting of maps, graphs and charts for the graphic presentation of geographical and statistical information. One lecture period and four laboratory periods weekly.

ES 317 Air Photo Interpretation 3 crs.

Theory and practice in extracting information about the earth's physical and cultural features from aerial photographs. Field experience in basic surveying techniques. One lecture period and two, two-hour laboratory periods weekly.

ES 354 Field Methods in Urban Geography 1-3 crs.

Prq.: ES 353.

A geographic analysis of local urban areas and their problems, and the application of concepts learned in ES 353. Hours arranged.

ES 363 Field Methods in Economic Geography 1-3 crs.

Prq.: ES 362.

The testing of theories and concepts of economic location in the local area.

ES 400 Internship in Urban Planning 6 crs.

Student internship in a local planning department. The purpose of this internship is to allow a student to become familiar with the various aspects of his urban interest.

ES 410 Urban Land Use Mapping 3 crs.

Prq.: ES 353

The process of mapping urban land uses will be studied with emphasis placed on field work. A total of 90 contact hours working in the field and in urban planning office is required of all students taking this course.

ES 471 Seminar in Geography 3 crs.

The historical development of methods, tools, and techniques used in geographic research. Preparation of a research paper on a problem selected from one of the subdivisions of geography. For senior Geography majors. Two periods weekly for three quarters.

ES 474 Quantitative Geography 2 crs.

Prq.: consent of the instructor.

The use of statistical techniques, and computer and model building methodology to analyze various spatial phenomena.

ES 490 Field Methods in Geology

3 crs.

Prq.: ES 181, 192 or consent of the instructor.

Collection, processing and interpretation of field data developed by geologic mapping. Presentation of geologic reports involving maps, cross-sections and sample data. One lecture period and two two-hour laboratory periods weekly.

DEPARTMENT OF MATHEMATICS

Professor Murray Abramson, Chairman

Associate Professors: Robert Bent, Joseph Chiccarelli, Hugo D'Alarcao, Robert Lemos, Henry Mailloux, Michael Makokian, George Sethares.

Assistant Professors: Walter Gleason, Frank Lambiase, Thomas Moore, Richard Quindley, I. Philip Scalisi, Donald Simpson, Robert Sutherland.

Since mathematics is both a cultural and technical field of study, the curriculum is planned with the following objectives: 1) to give the student an introduction to mathematics as an important area of human thought; 2) to give adequate preparation for students planning to teach mathematics on the secondary level; 3) to serve the needs of students in fields which rely on mathematics, e.g., computer science, experimental sciences, social sciences, and elementary education; 4) to give preparation to students for graduate study in mathematics and related fields.

A grade of C or above in MA 102 is required for continuation as a mathematics major.

Mathematics Major

MA-101-102, MA-201-202, MA-301, MA-401, six electives from MA-290, MA-292, MA-302, MA-303, MA-304, MA-316, MA-349, MA-402, MA-403, MA-406, MA-407, MA-408, MA-412, MA-415, MA-416, MA-418, MA-490

Majors must also successfully complete a one-year sequence of language study at the intermediate level, or its equivalent. A math major beginning a new foreign language is required to take only six hours of that language.

Mathematics Minor

Students who wish to minor in mathematics should consult with the Department Chairman to select a course of study compatible with the student's interests and background.

MA-103-104, MA-105-106, MA-110, MA-111, MA-190, MA-214, MA-216, MA-220, MA-223, MA-321, and any of the courses offered for the major in mathematics.

Mathematics Concentration

Three courses selected from MA-110, MA-190, MA-214, MA-216, MA-220, MA-223, MA-321.

MA 101, 102 Calculus with Analytic Geometry I-II 4 crs. for each semester.

Inequalities, functions and their graphs, the line and linear inequalities limits and continuity, differentiation of algebraic functions and applications. The definite integral and applications, analytic geometry of the conic sections, the trigonometric and exponential functions, parametric equations and polar coordinates, calculus of vectors in a plane. Required of all freshman candidates for a degree in Mathematics, Physics, or Chemistry. Open to other qualified freshmen with consent of the Department Chairman.

MA 103, 104 Mathematical Analysis I-II 3 crs. for each semester.

Sets, algebraic functions and their graphs, topics from algebra, trigonometric functions and analytic trigonometry, logarithmic and exponential functions, analytic geometry of the line and conic sections, differentiation and integration of algebraic functions and their applications. Required of all freshman candidates for a degree in Biology or Earth Science.

MA 105 Topics in Mathematics 3 crs.

Topics to be selected from: Elementary logic, number theory, geometry, algebra and finite mathematics. Recommended for Liberal Arts majors.

MA 106 Fundamentals of Mathematics 3 crs.

Linear and quadratic equations, functions and their graphs, trigonometry, analytic geometry of the straight line and conic sections.

MA 107, 108 College Mathematics for Elementary Majors I-II 3 credits for each semester.

Theory of sets, relations and their properties, systems of numeration, axiomatic approach to the real number system through a study of the integers and rational numbers, elementary number theory, nonmetric and analytic geometry, groups, linear equations and inequalities, probability.

MA 110 Elementary Statistics I 3 crs.

Variance, covariance, linear correlation, general regression lines, introduction to sampling theory; and the following distributions: normal, t, chi-square and F.

MA 111 Elementary Statistics II 3 crs.

Prq.: MA 110

A continuation of the topics in MA 110 with emphasis on experimental design.

MA 190 Introductory Computer Programming 3 crs.

For non-science majors. Computer organization and software. Basic programming. Solution of simple arithmetic and algebraic problems. Elementary data processing techniques. A survey of computer applications in the social sciences and humanities. *Only one of the following may be offered for credit: MA-180, MA-190, MA-290.*

MA 201 Calculus with Analytic Geometry III 4 crs.

Prq.: Permission of the Department

Methods of integration and applications, solid analytic geometry, calculus of vectors in space, elements of infinite series, partial differentiation, multiple integration.

MA 202 Linear Algebra 4 crs.

Vectors spaces, linear transformations, and matrices.

MA 214 Introduction to Modern Algebra 3 crs.

Prq.: MA 105 or MA 106 or MA 108 or Permission of the Department.

Linear congruences, groups, matrices, and linear systems.

MA 216 Analytic Geometry 3 crs.

Prq.: MA 105 or MA 106 or MA 108 or Permission of the Department.

Trigonometric functions and analytic trigonometry, analytic geometry of the straight line and conic sections.

MA 220 Introduction to Calculus

3 crs.

Prq.: MA 105 or MA 106 or MA 108 or Permission of the Department
Functions and limits, derivatives and antiderivatives, the definite integral, differentiation of algebraic and transcendental functions, applications. Mathematics elective for non-science majors.

MA 223 Introduction to Linear Algebra

3 crs.

Prq.: MA 105 or MA 106 or MA 108 or Permission of the Department
Matrices, determinants, vectors, systems of linear equations.

MA 290 Computer Science I

3 crs.

Prq.: MA-102, or MA-104
For science majors only. Development of algorithms and programs. Solution to several numeric and non-numeric problems using BASIC programming language. Basic computer organization and software. Historical survey of computers, language and applications. Programming in the BASIC language on a PDP/8-1 computer and/or by time sharing on a CDC-6600 computer. *Only one of the following may be offered for credit: MA-180, MA-190, MA-290.*

MA 292 Computer Science II

3 crs.

Prq.: MA 290 or permission of the department
Survey of computer languages. Exposition of characteristics which make these languages appropriate for particular classes of problems. Solution of numerical problems using the FORTRAN language. Computer structure, machine language, digital representation of data, symbolic coding for the PDP - 8/1. Programming in the FORTRAN language on the PDP - 8/1 and/or by time sharing on a CDC-6600 computer with emphasis on the solution to scientific problems.

MA 301 Abstract Algebra I

3 crs.

Prq.: Permission of the department
Introduction to the theory of rings, integral domains and fields through a study of integers, rational numbers, real numbers, complex numbers and polynomials; elementary group theory.

MA 302 Abstract Algebra II

3 crs.

Prq.: MA 301.
Group theory, linear groups, rings and ideals, extensions of rings and fields.

MA 303 Number Theory

3 crs.

Prq.: Permission of the department
Development of the number system, the Euclidean Algorithm and its consequences, theory of congruences, number-theoretic functions, Diophantine equations, quadratic residues.

MA 304 Higher Geometry

3 crs.

Prq.: Permission of the department
Axiomatic systems, finite geometries, introduction to synthetic and analytic projective geometry, affine geometry, non-Euclidean geometry.

MA 316 Differential Equations

3 crs.

Prq.: MA 201.
Ordinary differential equations of first and second order, linear differential equations with constant coefficients, the Laplace transformation, applications.

MA 321 Introduction to Probability

3 crs.

Prq.: MA 105 or MA 106 or MA 108 or Permission of the Department
Permutations and combinations, finite sample spaces, random variables, binomial distributions, statistical applications.

MA 349 Foundations of Mathematics 3 crs.

Prq.: Permission of the department
Elements of set theory and logic, development of the basic number systems, Peano postulates, development of the natural numbers, the integers and rational numbers, real numbers, and Cauchy sequences.

MA 401 Advanced Calculus I 3 crs.

Prq.: MA 201.
Fundamental theorems on limits and continuity, properties of derivatives, functions of several variables, partial derivatives, multiple integrals.

MA 402 Advanced Calculus II 2 or 3 crs.

Prq.: MA 401 or Permission of the Department
Sequences, infinite series, power series and expansions of functions, vector calculus. May be offered as a quarter or semester course.

MA 403 Probability Theory 3 crs.

Prq.: MA 201.
Permutations and combinations, calculus of probabilities, discrete and continuous random variables, expectation, elementary probability distributions, moment-generating functions, sample spaces.

MA 406 Theory of Sets and Elementary Logic 2 or 3 crs.

Prq.: Permission of the department
Truth tables, rules of inference, method of proof, the algebra of sets and graphs of functions, cardinal numbers. May be offered as a quarter or semester course.

MA 407 Topology 3 crs.

Prq.: MA 201 and MA 301 or Permission of the Department.
The elements of point set topology, closed sets and open sets in metric spaces, continuous mappings, connection, separation theorems and compactness.

MA 408 History of Mathematics 3 crs.

Prq.: Permission of the Department.
The development of elementary mathematics from ancient to modern times.

MA 412 Mathematical Statistics 3 crs.

Prq.: MA 201 or Permission of the Department.
Fundamental statistical methods, tests of significance and estimation based on large or small samples, simple correlation, linear regression, statistical inference, sequential analysis.

MA 415 Numerical Analysis 3 crs.

Prq.: MA 201.
Solution of algebraic and transcendental equations, general iteration method, Newton-Raphson method. Approximation of functions and curve fitting, Lagrange interpolation formula, Newton's forward difference method, method of least squares, orthogonality. Numerical integration, Euler-Cauchy technique.

MA 416 Applied Mathematics 3 crs.

Prq.: MA 316 or Permission of the Department.
Fourier analysis, numerical solutions of ordinary and partial differential equations, integral equations, special functions.

MA 418 Complex Function Theory 3 crs.

Prq.: MA 401.
Analytic functions of a complex variable, differentiation and integration in the complex plane. Cauchy's theorems, infinite series. Laurent expansions, theory of residues.

MA 490 Mathematics Seminar**2 or 3 crs.**

Prq.: MA 201, MA 202, and MA 301 or permission of the Department.

Topics to be selected from algebra, geometry, and analysis. May be offered as a quarter course or semester course.

MA 499 Directed Study in Mathematics**1 - 3 crs**

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF PHYSICS

Professor Richard F. Calusdian, Chairman

Professors: Felix S. Palubinskas, George A. Weygand

Associate Professors: Raymond L. Blanchard, Erwin D. Harris

The Department of Physics offers a program leading to the Bachelor's degree in Physics. This program is sufficiently flexible to prepare a student for graduate school, industry, or secondary school teaching. Each student can plan his physics program, with the help of his faculty advisor, to meet his specific future needs. If a student minors in education, he will meet the Massachusetts State Certification requirements for teaching physics. One three credit mathematics course as an elective will allow the student to meet the Massachusetts State Certification requirement for teaching mathematics.

Physics Majors:

PH 243-244, 385, 387, 388, 389, 403; CH 141-142; MA 101-102, 201, 316 or their equivalent; a one-year sequence in foreign language at the intermediate level, or its equivalent.

Physics Minor

18 credits in Physics acceptable for the physics major

Physical Sciences Minor

18 credits in Physics and Chemistry, exclusive of CH 200 and PH 200.

Physics Concentration

9 credits in Physics, exclusive of PH 200

Physical Sciences Concentration

9 credits in Physics and Chemistry, exclusive of PH 200 and CH 200

PH 181 Elements of Physics I**3 crs.**

Principles of mechanics, heat and sound. Two lecture periods and one two-hour laboratory period weekly.

PH 182 Elements of Physics II**3 crs.**

Prq.: PH 181.

Principles of electricity, magnetism, optics and modern physics. Two lecture periods and one two-hour laboratory weekly.

PH 200 Survey of Physics 3 crs.

Elements of mechanics, heat, electricity, magnetism, optics and modern physics. Two lecture periods and one two-hour laboratory weekly.

PH 202 Modern Physics for the Humanist 3 crs.

A study of 20th century man's attempts to understand the laws of nature and his relations to them. Among the topics to be considered are the theory of relativity, elementary particles, nuclear physics and the Manhattan project, quantum theory and applications to philosophy and technology.

PH 243 General Physics I 4 crs.

Prq.: MA 102.

Calculus based study of mechanics and heat. Three lecture periods and one three-hour laboratory weekly.

PH 244 General Physics II 4 crs.

Prq.: PH 243.

Calculus based study of electricity, magnetism, and light. Three lecture periods and one three-hour laboratory weekly.

PH 371 Biophysics, Microscopic Aspects 3 crs.

Prq.: Consent of the instructor.

The structure, function, and control of the skeletal, muscular, nervous, blood-vascular and other body systems of the human being on the macroscopic or large-system level. Three lecture periods.

PH 372 Biophysics, Microscopic Aspects 3 crs.

Prq.: Consent of the Instructor.

The structure, function, and control of the human body on the microscopic or molecular level. May be taken independently of PH 371.

PH 381 Thermal Physics 3 crs.

Prq.: PH 243, PH 244.

Thermodynamics; kinetic theory; and statistical mechanics.

PH 385 Optics 3 crs.

Prq.: PH 244.

Study of geometrical and physical optics. Three lecture periods weekly.

PH 387 Modern Physics 3 crs.

Prq.: PH 243, PH 244.

Theory of relativity; atomic structure; quantum theory; nuclear physics and elementary particles.

PH 388 Electricity and Magnetism 4 crs.

Prq.: PH 244.

The theory and applications of the fundamental equations of electromagnetism. Three lecture periods and one three-hour laboratory weekly.

PH 389 Mechanics 3 crs.

Prq.: PH 243.

Vector treatment of forces, torques; dynamics of particles and rigid bodies; work and energy; momentum; small oscillation theory; Lagrangian and Hamiltonian formulation of dynamics.

PH 390 Research Problems in Physics Credits arranged.

Special projects for advanced students desiring individual instruction in the methods of physics research. Hours arranged.

PHYSICS

PH 391 Solid State Physics

3 crs.

Prq.: PH 387.

Crystal structure; electric, magnetic and thermal properties of matter; transport properties; band theory; super conductivity.

PH 382 Electronics

4 crs.

Prq.: PH 244.

Study of electron tubes, semiconductors, and electronic circuits. Three lecture periods and one three-hour laboratory period weekly.

PH 393 Special Topics in Modern Physics

3 crs.

Prq.: PH 387

Topics to be chosen from among the areas of the theory of relativity, Quantum mechanics, Solid State and Nuclear Physics.

PH 395 History of Science

3 crs.

The development of scientific thought and scientific method from the Ionian Greeks to the contemporary era.

PH 399 Experimental Physics

Credits arranged.

Introduction to advanced experimental techniques of physics.

PH 402 Quantum Mechanics

3 crs.

Prq.: PH 403.

Wave nature of matter; the Schrodinger equation; application of the Schrodinger equation to the electron, the hydrogen atom, multi-electron atoms and radiation.

PH 403 Mathematical Physics

3 crs.

Prq.: PH 243, PH 244, MA 103.

Vector analysis; matrices, linear differential equations; Sturm-Liouville theory; Fourier series; orthogonal functions; Laplace transform.

PH 405 Nuclear Physics

3 crs.

Prq.: PH 387.

Nuclear forces, nuclear models, nuclear reactions and radioactivity, and elementary particles.

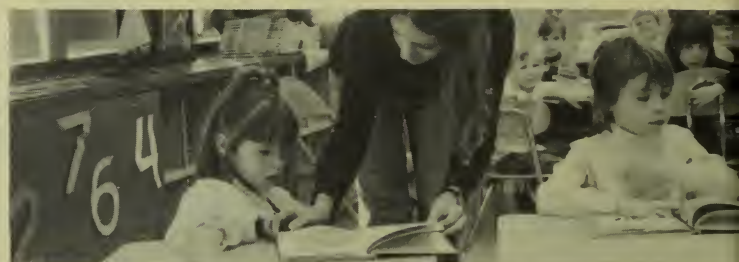
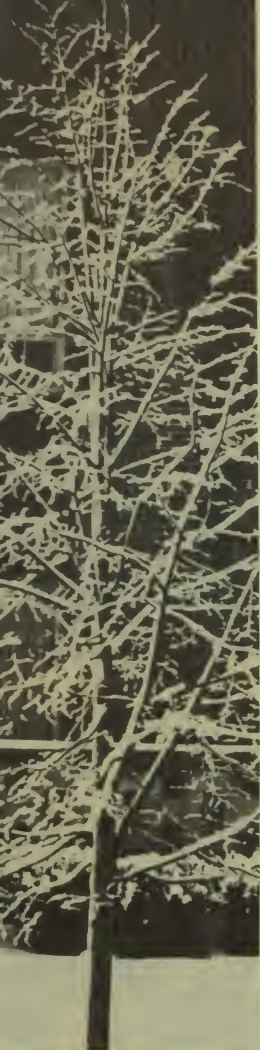
PH 499 Directed Study in Physics

1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.





DIVISION OF PROFESSIONAL EDUCATION

DIRECTOR: PROFESSOR HARPER

Educational Services

Elementary Education

Health & Physical Education for Men

Health & Physical Education for Women

Instructional Media

Library Science

Secondary Education

The Division of Professional Education, through its departments of Educational Services, Elementary Education, Health and Physical Education for Men, and for Women, Instructional Media, Library Science, Burnell Campus School, and the Office of Teacher Preparation and Placement, is responsible for designing and administering programs for the professional preparation of early, middle, and later childhood teachers and specialized school personnel, and for providing service to the schools of the area.

Students following the curricula leading to the Bachelor of Science in Education, when admitted to the Teacher Preparation Program, are prepared for teaching in the elementary schools either as mainstream or special needs teachers, or for teaching Health and Physical Education at all levels. Students majoring in most of the curricula leading to a Bachelor of Arts or Bachelor of Science may minor in Secondary Education and, when admitted to the Teacher Preparation Program, be prepared for secondary school teaching.

The College offers four-year curricula leading to degrees and teacher certification in the following fields:

Majors in . . .

Elementary Education (K-6)

Health and Physical Education (K-12)

Special Education (with Elementary Education)

Minors in . . .

Library Science (Certified as School Librarian K-12)

Secondary Education (7-12) with majors in . . .

Art

Biology

Chemistry

Earth Science

English

French

Geography

History

Mathematics

Physics

Speech and Theatre

and major combinations for certification in . . .

General Science

Social Studies

PROFESSIONAL EDUCATION

Degree programs having the above majors or minors satisfy current requirements for appropriate Massachusetts teaching certificates, and meet certification requirements of many other states through either reciprocity agreements with those states or transcript evaluation.

ADMISSION TO TEACHER PREPARATION PROGRAM

The programs in professional education are designed as a series of experiences encompassing theoretical knowledge as well as its practical application through student teaching. The goal of the program is the graduation of students with outstanding qualifications upon entering the profession.

All students wishing to join one of the teacher preparation programs offered must make formal application through their department chairmen and the Teacher Preparation and Placement Office during February of their sophomore year or, for transfer students who have completed the sophomore year, during September of their junior year. Application forms may be obtained from the appropriate department chairman.

Criteria for Admission

The Teacher Preparation Office uses a number of criteria for the admission and retention of students in the programs.

- 1) A matriculated student at the College with a minimum Q.P.A. of 2.0.
- 2) Speech and English proficiency.
- 3) Health and physical fitness.
- 4) Character and personality.
- 5) Any additional criteria which may be required by the student's department.

Announcements of acceptance into a program will be made in early April. Students not accepted into a Teacher Preparation Program will be referred to the Office of the Academic Dean for replanning of their program of study.

Admission to Off-Campus Student Teaching

Good standing in relation to the aforementioned criteria must be maintained.

The appropriate application form (to be obtained through the Teacher Preparation and Placement Office by February of the junior year) is to be completed and filed with that office by March 15 of that year.

Programs of the Departments

Programs of the various departments in the division appear on the pages which follow.

DEPARTMENT OF EDUCATIONAL SERVICES

Professor John Deasy, Acting Chairman

Professors: V. James DiNardo

Associate Professors: Anthony DeLeo, Isabelle King

Assistant Professors: Genevieve Ash, Tracy Baldrate,

Peter Bizinkauskas, Henry Fanning, Martha Jones,

Paul Prescott, Bonnie Roberts, Ronald Rossi, Vincent Worden

Instructor: Judith Deckers

The Department of Educational Services provides a program for Special Education majors in which stress is placed on professional competencies necessary to become an effective teacher in this field. Emphasis is placed on the use of appropriate teaching procedures, materials, and evaluation techniques. Practical experience in actual school situations is considered most important. This includes formal student teaching, and other required and voluntary experiences.

Special Education majors are encouraged to select a concentration in one of the following fields: Anthropology, Instructional Media, Early Childhood, Psychology, Reading, Sociology, Speech. Concentrations in other academic fields may be selected with approval of the department advisor. A concentration consists of a minimum of nine semester hours credit beyond General Education or department requirements.

The Department provides a service course in Educational Measurement and elective courses in Special Education, Reading and Guidance.

Special Education Major

ED-336, ED-391, ED-410, ED-411, ED-417, ED-420, ED-425, ED-426, ED-480,
ED-491 and IM-311

Concentration in Reading

ED-372, ED-435, ED-436

Concentration in Special Education

ED-410, ED-411, PY-228

SPECIAL EDUCATION

ED 336 Teaching Reading in Special Education

3 crs.

Basic reading principles and skills; appropriate correctional and remedial techniques and materials for the child with limited ability. Audiovisual materials, phonics, and the clinical approach to teaching will be stressed.

ED 391 Supervised Student Teaching in Special Education

6 crs.

Prq.: ED 411 and acceptance and good standing in Teacher Preparation Program
Residential schools and public schools will serve as the laboratory in which students engage in the directed study of children in learning situations as they are encountered in special education classes. Students participate increasingly in the activities to the extent to which they can undertake the duties of the special class teacher. Frequent conferences with supervisors and specialists, the understanding of anecdotal records, case summaries and behavior will be part of this program.

ED 409 Survey in Learning Disabilities

3 crs.

Prq.: ED 330 or ED 336 or permission of Instructor

An eclectic approach to etiology, classroom assessment, techniques and remediation of learning disabled children.

EDUCATIONAL SERVICES

ED 410 Introduction to Special Education

3 crs.

A survey of all phases of special education emphasizing the program for mentally and physically handicapped children, for emotionally disturbed children, and for the academically talented. The slow learner and the perceptually handicapped will receive consideration.

ED 411 Methods and Materials in Special Education

3 crs.

Special emphasis will be placed on philosophy, general and specific aims, identification and classification, curriculum development, and the planning, developing, and guiding of pupil experiences in the educational program for retarded children.

ED 417 Teaching Emotionally Disturbed Children

3 crs.

Prq.: PY 200 and ED 410.

Classroom facilities including carrels, learning experiences, administrative functions, educational materials and the administration of the program will be emphasized.

ED 425 Educational Procedures in Special Education

3 crs.

A review of the educational procedures and curricula in all areas of exceptionality. Increased emphasis will be placed on identification, classification, placement, and the appropriate teaching procedures for each type.

ED 426 Workshop in Special Education

3 crs.

The practical aspects of special education techniques will be brought into focus through the use of off-campus facilities. In cooperation with area communities, research will be carried out to find methods and techniques for improving the effectiveness of special education programs.

ED 427 Guidance in Special Education

3 crs.

Prq.: PY 200 and ED 410.

The complete diagnostic process, understanding of case summary, educational guidance throughout the school attendance, and vocational guidance.

ED 491 Supervised Teaching in Public Schools—Special Education

6 crs.

Prq.: ED 391 and acceptance and good standing in Teacher Preparation Program.

Continuous supervised experiences under regular special class conditions will be provided. Experience will be gained in different teaching techniques, individual differences, and classroom management. Supervision by the cooperating teacher and the college supervisor should culminate in the assumption of at least one week of full-time responsibility. Required of all Special Education majors.

READING SERVICES

ED 331 Developmental Reading in the Secondary School

3 crs.

The techniques used to develop reading skills in the secondary school, evaluation of the modern reading materials available, a study of techniques used to analyze students' reading needs and a survey of administration of reading programs in the secondary school.

ED 372 Success in Beginning Reading

3 crs.

A thorough examination of the language and perceptual backgrounds that children bring to the learning tasks of kindergarten and grade one; the initial steps in developing reading and writing skills; and the possibilities for the creative uses of these skills in the primary grades. Consideration will be given to the implications of the factors underlying such labels as "slow-learning," "disadvantaged," "dyslexic," and "language-handicapped" children.

ED 435 Teaching Study Skills and the Uses of Reading 3 crs.

Opportunities open to classroom teachers for promoting voluntary reading through individualized reading, classroom specialties and curricular-related research projects. Consideration of the ways in which teachers can guide pupils to apply their basic reading skills as they study content subjects: locating, selecting, organizing information, preparing reports, setting their own purposes for reading.

ED 436 Remedial Reading Techniques for Classroom Teachers 3 crs.

Prq.: ED 330 or ED 336 or permission of instructor.

Experience in analyzing learning needs, preparing remedial plans, and providing highly motivated, intensive instruction to overcome specific weaknesses. Testing and tutoring experiences with elementary children. Two lecture and two laboratory periods weekly.

GUIDANCE AND MEASUREMENT**ED 420 Educational Measurement 3 crs.**

Procedures for developing and evaluating classroom teacher-made tests and a survey of standardized testing practices used in the K-12 program. Emphasis will be placed on the student's intended area of, and/or level of concentration.

ED 430 Principles and Practices in Guidance 3 crs.

The philosophy and historical development of the guidance movement; the need for guidance; the nature of guidance services in the schools of today; the personnel, facilities, and procedures involved; and the role of the classroom teacher in guidance. Open to all seniors.

ED 485 History of Educational Thought 3 crs.

Research and evaluation of the theories of education from which present educational practices, policies, and theories have developed. Not offered in 1974-1975.

ED 487 History of American Education 3 crs.

An examination of the development of education in America from colonial times up to the present with a consideration of probable future directions. Not offered in 1974-1975.

ED 499 Directed Study in Education 1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF ELEMENTARY EDUCATION

Associate Professor Wayne F. Dickinson, Chairman

Professors: Robert Daniel, Robert McCurdy

Associate Professor: Dorothy Wood

Assistant Professors: Diana Draheim, Margery Kranyik, Wayne Phillips,
Rolf Ronning, Gerald Thornell

Instructor: Thomas Wolpert

The Department of Elementary Education strives to provide the student with the professional competencies necessary to become an effective elementary teacher, including an understanding of how students learn, and an ability to use appropriate and modern teaching procedures, materials, and evaluation techniques. A very important part of the elementary teacher preparation is the provision for student teaching in actual school situations. Elementary majors are encouraged to select a concentration in one of the following fields: English, Speech, Art, Music, Modern Languages, History, Urban Education, Anthropology, Psychology, Sociology, Biology, Earth Science, Chemistry, Physics, Physical Science, Mathematics, Library Science, Early Childhood, Reading, Special Education or Instructional Media. A concentration consists of at least nine semester hours credit beyond the general education requirements.

Graduates of the program will be fully licensed to teach elementary grades in the Commonwealth of Massachusetts. Depending on the concentration chosen, students may later pursue graduate studies in Reading, Early Childhood Education, Guidance, Special Education, Administration and other related fields.

Elementary Education Major

ED-220, ED-330, ED-340, ED-350, ED-390, ED-420, ED-462, ED-480, ED-492,
IM-310, PE-320

Concentration (Early Childhood)

9 credits chosen from ED-370, ED-372, ED-474, LI-310

ED 220 Introduction to Strategies of Teaching

3 crs.

Taken by sophomore elementary majors as their first course in professional education. Observation of elementary-age children in a classroom setting, opportunity for actively working with such children, confirmation of the choice of teaching as a career and the beginning of the development of skills needed to be a successful teacher.

ED 330 Teaching of Reading in the Elementary School

3 crs.

Prq.: PY 200.

A consideration of how reading instruction is initiated, how basic reading abilities are developed, and how growth in voluntary reading is encouraged. The essentials of an effective developmental reading program will be examined with attention to organizing groups and evaluating progress.

ED 340 Methods and Materials in Elementary Language Arts

3 crs.

Prq.: PY 200.

Stress on the new language-focused approach to English and the modern concepts of English grammar and usage. Creative strategies and ideas in teaching the skills and abilities of listening, speaking, and writing.

ED 350 Methods and Materials in Elementary Mathematics 3 crs.

Prq.: PY 200 and MA 107.

Acquaintance with the purpose and content of the contemporary elementary school mathematics curriculum. A wide variety of effective teaching procedures and instructional materials designed to meet the varying abilities within the elementary school classroom.

ED 370 Kindergarten Theory and Methods 3 crs.

Prq.: PY 200.

The philosophy of modern kindergarten education including exploration of emerging theories and new approaches. Developmental characteristics and learning styles of the young child are studied and related to initial school experiences designed to foster maximum growth. Curriculum methods and materials are examined and evaluated. Opportunities will be provided to observe the kindergarten child in the classroom.

ED 390 Supervised Student Teaching in the Campus Schools 6 crs.

Prq.: PY 200, ED 220, and acceptance and good standing in Teacher Preparation Program.

The Campus Schools serve as laboratories in which students engage in the directed study of children in learning situations as they are encountered in a modern school. As the study progresses, students participate increasingly in the activities of the school to the point at which they can undertake the duties of the room teacher. Included are several hours of weekly conferences with the supervising teachers, and weekly seminars with specialists in the fields of art, music, speech, and physical education.

ED 454 Seminar in Elementary Education 3 crs.

A culmination of all professional experiences in preparation for teaching. Included are review and evaluation of current elementary school practices, discussion of professional ethics and school law, professional growth opportunities, procedures for securing a teaching position, and preparation for and the responsibilities of the first teaching position. Open to all Senior Elementary majors or by permission of Chairman.

ED 462 Science and Social Studies Methods and Materials in Elementary Schools 3 crs.

Prq.: PY 200.

The goals of scientific inquiry and responsible citizenship. The establishment of objectives and the selection of appropriate methods, materials, and techniques of planning to meet these objectives. Current trends in the teaching of both science and social studies. Innovative ideas found in the newer programs.

ED 474 Methods and Materials in Primary Education 3 crs.

Prq.: PY 200.

Ways of teaching Primary-Grade children, taking into consideration the basic philosophy of their education and promoting an understanding that each child is a unique individual. Stress of effective organization and management, what to teach, how to teach, the importance of skill development, the necessity for drill, and the use of practical creative techniques.

ED 492 Supervised Teaching in Public Schools—Elementary 6 crs.

Prq.: ED 390 and acceptance and good standing in Teacher Preparation Program. Continuous supervised experience in all applicable elementary school activities. Experience in the study of individual differences, teaching techniques, and classroom management. Opportunities available in a variety of instructional environments. Supervision by the cooperating teacher and the college supervisor. Seminars may be held to exchange experiences. Students carry a minimum responsible teaching load equal to 50% of the cooperating teacher's assignment. Required of all Elementary majors. Full-time for one quarter.

ED 493 Supervised Teaching in Public Schools—Elementary

3 crs.

Prq.: ED 390 and acceptance and good standing in Teacher Preparation Program. For Elementary majors concentrating in Special Education or Library Science who do not take ED 492, but do one-half their student teaching in elementary education and one-half in the area of their concentration. Similar to ED 492 but for one-half the time.

ED 494 Supervised Teaching in Public Schools—Special Education

3 crs.

Prq.: ED 390, ED 410, ED 411 and acceptance and good standing in Teacher Preparation Program.

Taken in combination with ED 493 by Elementary majors concentrating in Special Education who do one-half their student teaching in this area during which continuous supervised experiences under regular special class conditions will be provided.

ED 496 Supervised Teaching in Public Schools—Library Science

3 crs.

Prq.: LI 370, LI 430, LI 440.

Taken in combination with ED 493 by Elementary majors concentrating in Library Science who do one-half their student teaching in this area during which continuous supervised experiences in Library Science are provided.

ED 499 Directed Study in Education

1 - 3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENTS OF HEALTH AND PHYSICAL EDUCATION

MEN'S DEPARTMENT

Associate Professor Harry Lehmann, Chairman

Associate Professors: Henry Gurney, Thomas Knudson, Edward C. Swenson

Assistant Professors: Edward Braun, George Lewis, Peter Mazzaferro

Instructor: Joseph Yeskewicz

WOMEN'S DEPARTMENT

Professor Catherine Comeau, Chairman

Professor: Mary Lou Thornburg

Associate Professors: Patricia Phillips, Sharon Tufts

Assistant Professors: Ann Coakley, Regina Gross, Virginia Hogg,

Joseph Huber, Shirley Krasinski, Hazel Schopp, Johanne Smith,

R. Thomas Trimble, Cora Wells.

Instructors: Margot Hurst, Marjorie Rugen, Carol Wolfgram

The Men's and Women's Departments jointly offer a program leading to the degree of Bachelor of Science in Education with a major in Health and Physical Education for men and women, as well as Health and Physical Education courses for all students.

The Health and Physical Education major is designed to prepare students for teaching and other fields related to Health and Physical Education. The course of study includes General Education, education and professional courses so as to provide the student with both personal enrichment and professional preparation.

Health & Physical Education Major*

HE 100, 101, 102, 200, 401;

PE 116, 117, 124, 216, 217, 218, 219, 321, 324, 326, 413; ED 392, 471, 480; and activity courses, PEM 155, 160, 161, 164, 185, 187, 285; (women) 132W, 133W, 140W, 162W, 186W, 262W, 286W; (men) 133M, 141M, 143M, 145M, 186M, 224M, 244M; and 3 credits of activity electives.

ED 392 Supervised Student Teaching in the Campus

Laboratory School

3 crs.

Prq.: PE 219 and Junior status in Major

Supervised teaching experiences in physical education for elementary school children. Open to juniors majoring in Health and Physical Education.

ED 471 Supervised Student Teaching in Public Schools

6 crs.

Prq.: ED 392 and Senior status in Major

Full-time teaching for one quarter with supervision provided by members of the department faculty.

HE 100 Anatomy

3 crs.

Includes a fundamental study of the human body and its parts, with special emphasis on bones, muscles, and tissues.

*This curriculum not totally applicable to the class of 1975.

HEALTH AND PHYSICAL EDUCATION

HE 101 Kinesiology

3 crs.

Prq.: HE 100.

Detailed anatomical and mechanical analyses of fundamental motor skills.

HE 102 Health Science

3 crs.

Attitudes and practices as they influence effective living; common adult health problems; community health standards and services; special problems of concern in the area of community health.

HE 200 Principles and Practices of Health Education

3 crs.

Selection of content for health courses with emphasis on current trends; analysis of the learning and teaching process as applied to health education.

HE 300 Current Issues in Health Education

3 crs.

Prq.: HE 102.

Designed to acquaint the student with current health issues and trends related to the school and community.

HE 301 Human Sexuality

3 crs.

Investigation of latest research relating to human sexual response, sexual attitudes and sexual values. Topics covered will also include homosexuality, masturbation, venereal disease, prostitution, abortion, birth control, premarital and extra marital relations.

HE 302 First Aid

1 cr.

Practical application of techniques used to care for the suddenly ill or injured. Successful completion will result in American Red Cross certification.

HE 303 Care and Prevention of Athletic Injuries

3 crs.

Theory and practice in bandaging, taping, and caring for athletic injuries. Also emphasis on prevention and rehabilitation.

HE 304 Sex and Family Life Education

3 crs.

A course designed to focus on current health issues related to marriage and the family; family planning, child rearing, family finances, insurance and consumer health care, divorce, infidelity, separation and their impact.

HE 305 Drugs in Society

3 crs.

Study of the impact of the environmental and cultural values affecting the drug using population. Views on subculture and alternative life styles and the forces that shape them. Understanding trends of modern treatment facilities and rehabilitation procedures. Emphasis on alternatives to drug use.

HE 306 Drug Education for Teachers

1 crs.

Overview of drug issues confronting classroom teachers. Exploration of teaching techniques, value systems, legal implications of teaching and confidentiality. Practical aspects of dealing with potentially controversial aspects of drug education.

HE 307 Health Education in the Elementary School

2 crs.

Study of the identification and appraisal of physical, emotional, and social health problems of elementary school children. Focus on teachers' approaches toward health education and the creation of an emotionally, socially and intellectually healthy classroom environment.

HE 308 Health for the College Student

3 crs.

An opportunity for the college student to better understand those health issues affecting him today. Areas covered include sexuality, marriage, family, drugs, alcohol, tobacco, emotional health and consumer health.

HE 310 Health Emergencies and Crisis Care 3 crs.

Basis for sound care of the physically, socially and emotionally ill or injured. Understanding of factors related to suicide, drug tripping, mental illnesses and other crises.

HE 401 Physiology of Exercise 3 crs.

Prq.: BI 385.

Includes the study of various systems, their interrelationships and adjustments during exercise and as a result of training. Emphasis is on current research findings and what remains to be discovered in man as a moving being.

PE 116 Introduction to Physical Education 3 crs.

An overview of the field of Physical Education as an integral part of education with emphasis on current trends, philosophy, objectives, relationship of the field to man, society and the role and responsibilities of the Physical Educator.

PE 117 Foundations in Study of Human Movement 3 crs.

An historical study of the development of man and movement will be undertaken with emphasis on the biological, psychological, sociological, cultural and philosophical implications. This course is designed to lay the foundation and provide for the understandings necessary to approach the study of physical education as a discipline in the twentieth century.

PE 124 Introduction to Physical Education Laboratory 1 cr.

Foundamentals of movement as it relates to all physical activity.

PE 216 Physical Education Curriculum 3 crs.

Study of current trends and theories of curriculum design and their application to the development of the Physical Education Program, Grades K-12.

PE 217 Principles of Motor Learning 3 crs.

Introduces the student to the concepts and principles concerned with learning and performance of movement skills.

PE 218 Survey of Teaching 2 crs.

An opportunity to observe and to participate in a variety of teaching situations pertaining to Physical Education; to study and discuss various methods of teaching; to develop seasonal plans and lesson plans; to evaluate teaching aids and materials; to evaluate the pupils' performance and the teaching program.

PE 219 Movement Education in Elementary Schools 4 crs.

Designed to introduce the movement experiences of children in the elementary schools. Emphasis is placed on self awareness through movement, on discovering and understanding the environment and on controlling and adjusting to the environment. 5 periods weekly.

PE 220 Expressive Movement 3 crs.

Creative exploration of individual and group movement to develop the kinesthetic sense and its artistic use. These movement experiences will help the individual's projection of self in his interaction and communication with others.

PE 317 Perceptual Motor Learning and Gymnastics 3 crs.

Introduction to perceptual motor functioning of elementary school children with supervised opportunities to analyze knowledge and apply practical experiences. Gymnastics at the elementary school level will give primary consideration to teaching and sporting techniques. Two lecture and two laboratory periods weekly.

PE 318 Evaluation in Physical Education 3 crs.

Principles of effective evaluation. Application of principles through choice and administration of tests and other measurement devices. Interpretation and use of obtained results.

HEALTH AND PHYSICAL EDUCATION

PE 319 Physical Education for Exceptional Children and Youth 3 crs.

The planning and development of physical education programs considered appropriate to the needs, interests and abilities of exceptional children and youth. Emphasis will be placed on the contribution that physical education can make to the education and well being of the physically, mentally and emotionally handicapped child.

PE 320 Physical Education for the Elementary Teacher 2 crs.

An introduction to the philosophy, objectives, and activities of the elementary physical education program with emphasis on the part played by the classroom teacher. Provision for visits to the Campus Laboratory School.

PE 321 Secondary School Physical Education 3 crs.

In depth study of physical education program grades 7-12. Emphasis on educational philosophies and policies, teaching-learning process, and program implementation in the contemporary setting.

PE 322 Rhythmic Analysis in Dance and Related Movement 3 crs.

Prq.: 3 semesters of PE activities.

Emphasis on relationship of rhythm and basic dance skills, composition of dances, motor skills performed to music or to rhythm, and methods of teaching folk, round, and square dance.

PE 323 Analysis of Movement Skills for Elementary Schools 3 crs.

Prq.: 3 semesters of PE activities, PE 320.

Performance of fundamental movement skills and sports skills through required lecture and directed laboratory experiences. Two lecture and two laboratory periods weekly.

PE 324 Adapted Physical Education 3 crs.

A course designed to introduce students to the physical education programs suited to children and youth with disabilities who require a restricted or individualized education program. An opportunity to observe and work with children with disabilities is provided.

PE 325 Recreation in the United States 3 crs.

The history of recreation and its impact on society today and in the future; school camping, camp counseling, outdoor recreation, and recreation in the elementary school program.

PE 326 Movement Experiences I 1 cr.

A laboratory analysis of the movement elements of time, force and space which includes basic skills. Emphasis will be placed on the cognitive development of fundamental movement skills.

PE 327 Movement Experiences II 1 cr.

A practical application of specific skills and refined movement patterns related to games, rhythm activities, sport and gymnastics. Experiences will be directed towards children's needs throughout elementary school.

PE 409 Scientific Foundations of Physical Education 3 crs.

Prq.: PY 224, PE 320.

Integration of the concepts of anatomy, kinesiology, and physiology of exercise relative to a program of elementary physical education. Application is made to the characteristics of growth and development of children in structuring physical activity to their needs.

PE 410 Physical Education in Agency Programs 3 crs.

In depth study of physical education within the social agency setting with emphasis on program development and instruction supplementing the normal school program.

PE 411 Organization and Administration of Health, Physical Education and Recreation**3 crs.**

Development of policies; administrative practices; interfaculty and intrastaff relationships; supervision; public relations; fiscal practices; development and use of facilities.

PE 413 Current Issues in Physical Education**3 crs.**

The examination and description of contemporary forces and trends in education and their implications for physical education. Opportunities will be available for students to present orally and in writing ideas relevant to professional concerns.

PE 414W Coaching**3 crs.**

Open to Junior and Senior Health and Physical Education Majors. The application of teaching and learning principles as related to the player, team, coach and athletic program. Areas to be included will be psychology and philosophy of coaching, organization and administration of the program, coaching techniques, conditioning and evaluative procedures.

PE 415M Methods and Techniques in Coaching Baseball**1 cr.**

Individuals offensive and defensive fundamentals; offensive and defensive team play; administration.

PE 416M Methods and Techniques in Coaching Basketball**1 cr.**

The theory and practice of basketball coaching; including the study of offensive and defensive systems, drills, training and conditioning of basketball squads.

PE 417M Methods and Techniques in Coaching Football**1 cr.**

History of football; fundamentals of line and backfield play; team defense and offense; field generalship; scouting; athletic injuries; study of rules.

PE 418M Methods and Techniques in Coaching Gymnastics**1 cr.**

Open to all students who have completed their physical education requirements. Emphasis on teaching techniques to help develop a competitive Gymnastics Team.

PE 419M Methods and Techniques in Coaching Ice Hockey**1 cr.**

Practice and Theory of Fundamental Ice Hockey Techniques.

PE 420M Methods and Techniques in Coaching Lacrosse**1 cr.**

The theory and practice of Lacrosse coaching; including the study of offensive and defensive fundamentals and systems, drills, training and conditioning of Lacrosse squads.

PE 421M Methods and Techniques in Coaching Soccer**1 cr.**

Teaching the skills of kicking, trapping, heading, dribbling, tackling, throwing; defensive and offensive soccer.

PE 422M Methods and Techniques in Coaching Track and Field**1 cr.**

How to train for track and field events. Form and technique in track and field.

PE 423 Methods and Techniques in Coaching Swimming**1 cr.**

Open to all students who have an American Red Cross Senior Life Saving Certificate. Emphasis placed on organizing, developing, and training Swim Teams on the Age Group and High School level.

PE 424M Methods and Techniques in Coaching Wrestling**1 cr.**

Fundamentals in free-style wrestling with emphasis on basic maneuvers. Theory and practice work.

PE 425M Officiating Baseball**1 cr.**

Rules and techniques in officiating baseball; organizations of officials; practical experience.

HEALTH AND PHYSICAL EDUCATION

PE 426M Officiating Basketball

1 cr.

Rules and techniques in officiating basketball; organizations of officials; practical experience.

PE 427M Officiating Football

1 cr.

Rules and techniques in officiating football; organizations of officials; practical experience.

PE 428M Officiating Soccer

1 cr.

Rules and techniques in officiating soccer; organizations of officials; practical experience.

PE 429W Officiating Field Hockey

1 cr.

Techniques of officiating Field Hockey. Practical as well as theoretical examinations are included with opportunity to earn a recognized rating.

PE 430W Officiating Basketball

1 cr.

Techniques of officiating Basketball. Practical as well as theoretical examinations are included with opportunity to earn a recognized rating.

PE 431W Officiating Volleyball

1 cr.

Techniques of officiating Volleyball. Practical as well as theoretical examinations are included with opportunity to earn a recognized rating.

PE 499 Directed Study in Health and Physical Education

1-3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

Physical Education Activities for all Students

The physical education courses listed below may be selected as electives. One credit hour is granted when the course meets for three hours a week for a quarter, or two credits when it meets for two hours a week for the semester. A maximum of six credit hours in physical education courses may be used toward graduation.

American Square Dance

Archery I, II

Badminton I, II

Basketball I, II — Women

Basketball I, II — Men

Bowling I, II

Canoeing

Conditioning

Creative Modern Dance I, II

Fencing I, II

Flag Football — Men

Folk Dance I

Golf I, II

Gymnastics I, II

Modern Dance Technique

Movement and Relaxation I, II

Scuba Diving

Skiing I

Soccer — Men

Softball — Men

Softball — Women

Swimming I, II, III

Senior Life Saving

Synchronized Swimming

Tennis I, II

Track and Field

Volleyball I, II

Water Safety Instructors

Weight Training

Wrestling

**Physical Education Activity Core Courses for Health
and Physical Education Majors**

Coeducational Courses:

PEM 155 Swimming I	1 cr.	PEM 185 Gymnastics I	.5 cr.
PEM 160 Survey of Dance	.5 cr.	PEM 187 Tennis I	.5 cr.
PEM 161 Folk Dance I	.5 cr.	PEM 285 Gymnastics II	.5 cr.
PEM 164 Square Dance I	.5 cr.		

Courses for Men:

PEM 133M Basketball I	.5 cr.	PEM 186M Track & Field I	.5 cr.
PEM 141M Soccer	.5 cr.	PEM 224M Progressive Resistance Exercises	.5 cr.
PEM 143M Volleyball I	.5 cr.	PEM 244M Baseball/Softball	.5 cr.
PEM 145M Flag Football	.5 cr.		

Courses for Women:

PEM 132W Field Hockey I	.5 cr.	PEM 186W Track & Field I	.5 cr.
PEM 133W Basketball I	.5 cr.	PEM 262W Modern Dance II	.5 cr.
PEM 140W Lacrosse I	.5 cr.	PEM 286W Track & Field II	.5 cr.
PEM 162W Modern Dance I	.5 cr.		

**Physical Education Activity Course Electives for Health and
Physical Education Majors***

Coeducational Courses:

PEM 364 Square Dance Calling	.5 cr.	PEM 454 Advanced Recreational Aquatics	.5 cr.
PEM 385 Gymnastics III	.5 cr.	PEM 462 Modern Dance IV	.5 cr.
PEM 387 Tennis III	.5 cr.		

Courses for Men:

PEM 140M Lacrosse I	.5 cr.	PEM 240M Lacrosse II	.5 cr.
PEM 233M Basketball II	.5 cr.	PEM 286M Track & Field II	.5 cr.

Courses for Women:

PEM 232W Field Hockey II	.5 cr.	PEM 240W Lacrosse II	.5 cr.
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*Majors may also elect activities from Physical Education Activities for all Students.

DEPARTMENT OF INSTRUCTIONAL MEDIA

Professor Henry Rosen, Chairman

Associate Professor Alan Lander

Assistant Professor Robert Ward

Instructor Stephen Caine

The Instructional Media Department offers students the opportunity to become adept at and proficient in the use of the latest theory, techniques, and technology in education. The Department makes available extensive resources, references, and work areas for previewing, analysis, development, and presentation of materials.

Instructional Media Minor

IM-412, IM-452, IM-456, IM-457, IM-458, IM-460

Instructional Media Concentration

IM-452, IM-456, IM-460

IM 310 Audiovisual Methods and Materials

3 crs.

Introduction to instructional media and technology incorporating selection, evaluation and utilization of instructional materials. Instruction in and application of still pictures, slides, filmstrips, recordings, radio, television, three-dimensional materials, field trips, flannel boards, chalk boards, specialized teaching machines and audio-visual media design and preparation. Sources of teaching aids and supplementary materials accompanies laboratory procedures.

IM 311 Audiovisual Methods and Materials for Special Education

3 crs.

Same as IM-310 with guided research applicable to all areas of Special Education.

IM 412 Communication Theory

3 crs.

Prq.: IM-310

Applies basic concepts of communications to problems of teaching and learning in today's schools. Modern techniques and applications will be thoroughly discussed.

IM 420 Advanced Audiovisual Techniques

3 crs.

Directed study course. Development of a course of study in the student's field of concentration coordinated with instructional media and technology.

IM 424 Seminar in Instructional Media

Credits arranged.

Prq.: IM 420, IM 452, and IM 460

Systematic review of literature and research, techniques, and technology in instructional media. Reports for group discussion and analysis.

IM 452 Science of Photography in Education

3 crs.

Prq.: IM 310 or IM 311 or consent of the instructor

Basic philosophy, educational planning, and techniques of preparation of photographic instructional materials. Preparation of color and black and white slides, stills, filmstrips, transparencies for overhead projection. Emphasis upon photography and darkroom techniques.

IM 454 Script Writing Techniques for Radio and Television

3 crs.

Prq.: IM 310, IM 452, IM 460

Necessary approaches and techniques peculiar to the needs of radio and television. The student will write scripts for actual production in the studio.

IM 456 Radio and TV studio Operation and Control**3 crs.**

Prq.: IM 310

The student will learn all of the technical data necessary to direct TV programs and to operate a radio station, and be prepared to take the examination for either 1st, 2nd, or 3rd class license.

IM 457 Advanced Photography Techniques**3 crs.**

Prq.: IM 452

Advanced theory of photography and the preparation of projected photographic materials, slides, stills, filmstrips, motion pictures, and overhead transparencies. Advanced techniques of darkroom usage and salon printing.

IM 458 Radio and TV Production**3 crs.**

Prq.: IM 456

Designed to make the student proficient in the production of radio and TV programming, with stress upon being able to make, obtain, and set up necessary props, background, trick camera shots, and sound effects.

IM 460 Graphics for Instructional Media**3 crs.**

Prq.: IM 310 or consent of instructor.

Instruction in graphic arts pertaining to new technology in education. Mechanical and hand lettering and lay-out. Preparation of materials by color-lift, thermofax, and technifax techniques. Basics for photocopying including 2" x 2" slides.

IM 464 Management of an Instructional Media Department**3 crs.**

Prq.: Consent of Dept. Chairman

All phases of operating an instructional Media Department; budgeting, purchasing, staffing, services, analysis of materials and equipment. Cataloguing and classification of instructional materials using LC and Dewey Decimal Systems.

IM 466 Cinematography I**3 crs.**

Prq.: IM 452

Basic production of 8mm, standard and super 8, and 16mm motion picture films. Basic techniques involved in the production of motion picture films used in education. Not offered in 1974-1975.

IM 468 Advanced Cinematography**3-6 crs.**

Prq.: IM 452 and IM 466

Advanced techniques of film production in all of its technical phases, including production, design, editing, and sound synchronization for motion pictures in education. Not offered in 1974-1975.

IM 499 Directed Study in Instructional Media**1-3 crs.**

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF LIBRARY SCIENCE

Associate Professor Beatrice Bouchard, Chairman

Assistant Professor Adeline Oakley.

Instructors: Olive Lee, Richard Neubauer.

The Department offers library instruction to all students and to those who wish to minor in library science. Acceptance of transfer credits in library science courses, applicable to Massachusetts State Certification, must be approved by the Department.

Suggested electives for students in other programs: LI-300 for classroom teachers, school administrators; LI-310 for classroom teachers, Special Education and Reading; LI-320 for Secondary English teachers; LI-370 for students wishing to upgrade their research skills.

The minor in library science is designed for Elementary Education majors and Secondary Education minors wishing to receive Massachusetts certification as a school librarian. Students in this program must have a supervised experience in a library.

Library Science Minor

LI-310 or LI-320, LI-370, LI-430, LI-440

Two additional courses in Library Science

ED-496 - Elementary Education Majors

LI-495 - Secondary Education Minors

LI 102 Library Introduction

0 crs.

Freshman are familiarized with the library during one quarter of their first academic year. One period a week is devoted to developing basic library skills. Required of all freshmen; 1 one-hour period during one quarter.

LI 300 Library Services in the School

3 crs.

The philosophy, functions, and evaluation of the library in the school for future teachers, administrators, and librarians. Correlation of the library with the modern curriculum, the use of print and non-print materials in the library, and the mutual cooperation of administration, faculty, and students.

LI 310 Children's Literature

3 crs.

Reading interests of children from pre-school years through the elementary grades with emphasis on the contribution that reading can make toward the process of growing up; criteria for evaluation and analysis of children's books; types of books available today, considered in terms of the needs, interests, and abilities of children. Topics covered are history of literature for children; illustrators; folk-tales; myths; modern fanciful tales; fiction; poetry; books in special fields, such as history, science, travel.

LI 320 Literature for Young Adults

3 crs.

Survey of literature for the adolescent, designed for junior and senior high school teachers and librarians, including a brief history of the development of this literature, evaluation of publishers, and psychology of the adolescent reader.

LI 370 Reference Materials and Their Use

3 crs.

Outlines of appropriate procedures in various disciplines. Bibliographic search assignments give practical application of techniques using all the resources of the library.

LI 380 Seminar on the Book 3 crs.

The development of the written word from the earliest alphabet to today's computerized publishing, and the housing and dissemination of the book in relation to the world of learning.

LI 430 School Library Administration 3 crs.

Principles and practices in school library administration and service; the role of the library in the school's educational program; pupil instruction in library use; the planning and equipping of the library; and other aspects of library organization.

LI 440 Organization of Library Materials 3 crs.

Emphasis is on the Dewey Decimal classification and Sears Subject headings. Some time is given to the general processing of books.

LI 451 Storytelling 3 crs.

Examination of the literary sources, experience in selection and presentation of stories, and techniques in cultivating appreciation of literature in children from kindergarten through grade 8.

LI 452 Selection of Library Materials (Media Selection) 3 crs.

Criteria and policies in selection for reader interest and curriculum enrichment, with emphasis on practical applications and appraisal of bibliographic aids and current review practices.

LI 453 Film Study for Librarians 3 crs.

History, development, and screen conventions in the library program objectives of the school and community. Emphasis on acquiring analytic and evaluative skills and upon assessing emotional responses.

LI 464 Use and Organization of Non-print Materials 3 crs.

Prq.: IM 310, or consent of the instructor.

Survey of the standards and innovations in school media programs and exposure and proficiency in the use and organization of non-print materials currently used in libraries.

LI 495 Library Practicum 3 crs.

Continuous supervised experience in all phases of school or public library activities will be provided for students taking Library Science as a minor subject either with a major in a secondary education field or a major in a liberal arts program. The Practicum will be scheduled individually in a nearby public school or public library that has an experienced and trained librarian and a well established library program. Secondary education minors will be scheduled for the Library Practicum during the semester of the senior year that is not scheduled for classroom student teaching.

LI 499 Directed Study in Library Science 1-3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF SECONDARY EDUCATION

Associate Professor Robert E. Fitzgibbons, Acting Chairman

Professor Frederick Meier

Associate Professors: Arthur Baker, David Englund, Paul Kelley,
and Robert Mogilnicki

Assistant Professors: Burton Goldman, John Jones, Leo McGuirk,
and Raymond ZuWallack

The Department of Secondary Education provides students with the practical and theoretical knowledge necessary for becoming effective teachers in the secondary school. This includes a knowledge of the principles of secondary education, of how to use appropriate teaching procedures, materials and evaluation techniques and of the psychological and philosophical theories justifying their appropriateness.

Students preparing to teach in grades 7 through 12 pursue a program leading to the degree of Bachelor of Arts or Bachelor of Science with a minor in Secondary Education. A student must apply for admission, and be accepted in, the Teacher Education Program. See page 112.

Successful completion of the Secondary Education minor enables the student to receive a Secondary Teaching Certificate upon graduation (given current certification requirements).

Secondary Education Minor

ED 210, ED 211, ED 312-326, ED 490

ED 210 Principles of Secondary Education

3 crs

The influence of the school and of society upon each other and upon the student are studied. New educational developments are related to the school and its problems. The students actively study school problems in their setting by completing relevant environmental experiences on location. Problems common to most schools are studied. These include: goals and objectives, history and philosophy, organization, administration, curriculum, law, management, individual differences, discipline, guidance, and evaluation. Students are asked to gain meaningful experiences through observing, assisting, or tutoring activities within the secondary school environment.

ED 211 Educational Psychology

3 crs

The problems of the adolescent student and how he learns in the secondary school are studied together. Students are helped, in cooperation with a professor in Education, to assimilate and apply this learning theory by obtaining for them tutoring and other relevant experiences in approved schools, hospitals, or other institutions in the region.

ED 312-326 Methods and Materials in Secondary Education

3 crs. per semester

Prq.: PY 200.

In a team teaching situation, students study the methods and materials involved in teaching and functioning as a member of a secondary school faculty. More specifically, they will study materials and methods appropriate for their own discipline, relevant philosophical concepts, testing and measurements, instructional media, illustrations, effective speech, and unit organization for teaching. Other topics of study may be developed according to students' individual needs. Students will be expected to investigate, assist, tutor and observe in community schools. Faculty of the Departments of Secondary Education, Instructional Media, Speech, and the various academic departments will form a cooperating team to conduct the course.

A student registers for the course appropriate to his/her major according to the following schedule:

- ED 312 Social Studies
- ED 314 English
- ED 316 Earth Science
- ED 317 Geography
- ED 319 Physical Science
- ED 320 Biology
- ED 322 Mathematics
- ED 325 Art
- ED 326 Speech and Theatre

Each course is divided into two, 3 credit components. One component is team taught by members of the respective academic department and the Department of Secondary Education. The other component is taught by a team comprised of members of the Department of Secondary Education and the Department of Instructional Media.

ED 380 Contemporary Issues in Education 3 crs.

The identification and analysis of fundamental issues currently facing the American educator. The goal is to understand the source of the problems and to evaluate suggested solutions.

ED 382 Comparative Education 3 crs.

Representative educational patterns from Asia, Africa, Europe, North and South America and their relationship to social institutions and problems.

ED 443 Secondary School Curriculum 3 crs.

Purposes of the modern secondary school and the curriculum needed to implement them: historical origins, modern development, and future possibilities. Stress is laid on the manner in which the curriculum is built, behavioral objectives, visits to resource centers, assisting in curriculum construction, and methods of curriculum evaluation. (Not offered in 1974-1975.)

ED 480 Philosophy of Education 3 crs.

An introduction to thinking critically and imaginatively about education from the viewpoint of philosophy. Emphasis is placed on understanding the philosophical pre-suppositions which underlie educational practices and policies.

ED 485 History of Educational Thought 3 crs.

Research and evaluation of the theories of education from which present educational practices, policies, and theories have developed.

ED 487 History of American Education 3 crs.

An examination of the development of education in America from colonial times up to the present with a consideration of probable future directions.

ED 490 Supervised Teaching in the Public Schools 6 crs.

Prq.: Acceptance and Good Standing in Teacher Preparation Program
Students are assigned to appropriate student teaching stations where they work in an approved situation under an experienced supervising teacher. This is a practical experience for one quarter in a public school where student teachers are functioning as professional teachers. A college supervisor visits to assist the student teacher. Seminars may be held to exchange experiences. Students are expected to carry a minimum responsible teaching load equal to 50% of the regular classroom teacher's assignment. Full time for one quarter.

ED 499 Directed Study in Education 1-3 crs.

Prq.: Consent of the Department
Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.



DIVISION OF SOCIAL SCIENCES

DIRECTOR: PROFESSOR FIORE

Economics

History

Political Science

The Division of Social Sciences offers majors in History and Political Science.

Students majoring in Political Science may combine electives in History and Education and thus obtain certification in History and Social Sciences. There are also interdepartmental majors involving programs in the Behavioral Sciences. The Division of Social Sciences offers service courses in history, political science, and economics, for all undergraduate majors and provides electives to fulfill distribution requirements in the Social Sciences.

DEPARTMENT OF ECONOMICS

Professor Ralph Bates, Acting Chairman

Assistant Professor Stanley Antoniotti

EC 200 Economic Principles and Problems

3 crs.

A discussion of the basic principles of micro and macro economics. Emphasis is placed on the application of theory to solving the problems of the free enterprise system.

EC 320 Comparative Economic Systems

3 crs.

A study of philosophical and structural foundations of capitalism and democratic socialism. Emphasis is placed on a comparison of the American economy to the economics of England, France, Germany, Sweden, and Japan.

EC 420 Principles of Investment

3 crs.

Introduction to the mechanics of the stock market and analysis of investment techniques for individual portfolios.

EC 499 Directed Study in Economics

1-3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF HISTORY

Professor Jordan Fiore, Chairman

Commonwealth Professor Annabelle Melville

Professors: Ralph Bates, William Cole, Jr., Jane Herrick,
Stephanie Husek, Donald Keay, Maurice Rotstein,
Benjamin Spence.

Associate Professors: Gerald Doiron, Dennis Lythgoe, Arthur Oien,
Alfred Wolff, Jr.

Assistant Professors: Duane Christensen, David Culver, Chester Nowak,
Lucille O'Connell, John Myers, Philip Silvia, Jr., Jean Stonehouse,
Thomas Turner.

The department has four objectives: 1) to contribute to the general education program by offering history courses to all students; 2) to prepare students planning to teach history on the secondary level; 3) to provide a breadth in history enabling students to do graduate work in the field of history; and 4) to offer advanced courses to those majoring in the elementary curriculum to enable them to enrich the teaching of history at that level.

Those majoring in history, after completing HI 111, 112, 221, and 222 (for a total of 12 credits) will take 24 additional credits in advanced history courses in their third and fourth years. In the junior year, six credits will be taken in history courses other than in United States History. In the senior year history majors will take at least one 4.5 credit hour course in a history other than United States History. All students majoring in history will take a seminar in the second semester of the senior year. Students in an interdepartmental major (history-psychology, history-sociology, history-anthropology, history-behavioral science) will fulfill the same history requirements that history majors do through the junior year.

Majors must also successfully complete a one-year sequence of language study at the intermediate level, or its equivalent.

Those who wish to combine courses from other areas with history as a major concentration may do so with the approval of the department chairman. Non-history majors may take advanced courses in history provided they have already completed HI 112, 222.

HI 111 Western Civilization to 1715 3 crs.

A historical survey of developments which have molded our culture from ancient times down to the establishment of absolutism.

HI 112 Western Civilization since 1715 3 crs.

Prq.: HI 111.

Continuation of the survey begun in HI 111 down to contemporary times.

HI 221 United States and Constitutions to 1865 3 crs.

Development of the nation from the age of exploration to the end of the Civil War.

HI 222 United States History since 1865. 3 crs.

Continues the study begun in HI 221 down to the present.

HI 315 Nineteenth Century Europe 3 crs.

From the Napoleonic era to the eve of the First World War.

HISTORY

- HI 316 Twentieth Century Europe** 3 crs.
Particular focus on background, development, and effects of the two world wars.
- HI 317 British Political History since 1603** 3 crs.
England and her empire to 1815 with stress on parallel developments in American history, including economic and social factors.
- HI 318 British Empire and Commonwealth since 1815** 3 crs.
Political development to the present with emphasis on the rise and fall of the Second Empire.
- HI 319 Topics in British History** 3 crs.
Primarily for majors in English. Selected areas of political, economic, and social British life which nurtured the national literature.
- HI 321 Topics in Recent American History** 3 crs.
Prq.: HI 222.
The isolationism and boom of the 1920's, the New Deal, World War Two, and the postwar period.
- HI 325 American Labor History** 3 crs.
The pre-industrial and industrial periods. Emphasis on the reciprocal relationships of workingmen, Negroes, immigrants, and urbanization and industrialization.
- HI 326 The American West** 3 crs.
The westward movement, emphasizing the distinctive character of that region in its economic, social, political, and intellectual life.
- HI 327 The American South** 3 crs.
Sectionalism; its causes and consequences; factors which made the South distinctive; emphasis on race relations, the Civil War and Reconstruction, agrarianism, industrialization.
- HI 333 Spanish America: the Colonial Period** 3 crs.
Indigenous peoples of the area; exploration and conquest; institutional development of the empire to the revolts against Spain in the nineteenth century.
- HI 334 Spanish America: the National Period** 3 crs.
Prq.: HI 333.
From the revolutions against Spain to the present. Concentration on Mexico and two or three other states.
- HI 343 The Ancient World: Near East and Greece** 3 crs.
From prehistoric times to the Hellenistic empires.
- HI 344 The Ancient World: Rome** 3 crs.
From its beginnings to the barbarian invasions.
- HI 353 Historiography** 3 crs.
Prq.: Consent of the department chairman and the instructor.
Writings of major historians; evaluation through professional journals and book reviews. Limited to fifteen. Students are expected to elect HI 354.
- HI 354 Study and Writing of History** 3 crs.
Prq.: HI 353. Admission with consent of the department chairman and the instructor.
The techniques of historical research and preparation of papers requiring such techniques. Analysis and evaluation of source materials will be stressed.
- HI 357 History of Canada** 3 crs.
The political, social, and economic history of Canada from the seventeenth century to the present with emphasis upon the threads which have created the uniqueness which is Canada today.

- HI 411 History of Russia** 4.5 crs.
The early period as background of modern Russia. Emphasis on internal and foreign developments which resulted in the Soviet state. 3 periods weekly for one and one-half semesters.
- HI 413 Contemporary Affairs** 3 crs.
National and international problems, using magazines, newspapers, telecasts, and recent books. Political, economic, social, and scientific developments.
- HI 415 Modern Russia to 1917** 3 crs.
Prq.: HI 112
Political, social, and economic factors in the history of Russia from the end of the fifteenth century to the Revolution will be considered.
- HI 416 History of the U.S.S.R.** 3 crs.
Prq.: HI 415
The political, social, intellectual, and diplomatic development of Russia will be considered.
- HI 419 Intellectual History of Modern Europe** 4.5 crs.
From the Renaissance to the present. 3 periods weekly for one and one-half semesters.
- HI 421 History of Massachusetts** 3 crs.
From the days of the Pilgrims and Puritans to the present. In the modern period, emphasis is on social, economic, and constitutional history.
- HI 425 Social and Intellectual History of the United States to 1914** 4.5 crs.
The economic, social, and cultural development to the eve of the First World War, with emphasis on the transformation from an agricultural to an industrial society. 3 periods weekly for one and one-half semesters.
- HI 426 History of the American City** 3 crs.
Prq.: HI 221-222
Political, architectural, economic, social, cultural, and population factors in the growth and development of American cities since colonial times.
- HI 430 Europe in the Middle Ages** 3 crs.
From the fall of Rome to the Renaissance.
- HI 432 Modern European Imperialism** 3 crs.
Africa and Asia considered as contrasting phases of European expansion in the nineteenth and twentieth centuries.
- HI 433 Africa since 1800** 3 crs.
The impact of Islamic and European cultures on the peoples of Africa; creation of colonial empires.
- HI 436 The Renaissance and the Reformation** 3 crs.
Western Europe from the decline of feudal institutions to the emergence of the modern state system, with emphasis on cultural and intellectual affairs.
- HI 437 Modern France** 3 crs.
From the Revolution of 1789 to the present.
- HI 441 American Negro History** 3 crs.
From the colonial period through the present.
- HI 452 Senior Seminar in History** 3 crs.
Prq.: Consent of the department chairman and the instructor.
Each senior will elect a seminar in United States, European, or Latin American history. The number of students in each is limited. 2 periods weekly.

HISTORY

- HI 455 Nationalism in Central and Southern Europe** **2 crs.**
The aspirations of subject peoples and present-day tensions; the nineteenth and twentieth centuries. 4 periods weekly for one quarter.
- HI 456 History of Brazil** **2 crs.**
4 periods weekly for one quarter.
- HI 457 Historical Museum Management** **2 crs.**
4 periods weekly for one quarter.
- HI 461 History of East Asia** **4.5 crs.**
Emphasis on China and Japan in the nineteenth and twentieth centuries. 3 periods weekly for one and one-half semesters.
- HI 481 United States Foreign Relations to 1900** **3 crs.**
From the American Revolution to 1900.
- HI 482 United States Foreign Relations since 1900** **3 crs.**
- HI 499 Directed Study in History** **1-3 crs.**
Prq.: Consent of the Department
Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

DEPARTMENT OF POLITICAL SCIENCE

Professor Robert N. Larson, Chairman

Professor Walter Adamson

Assistant Professor Guy Clifford

Instructor Michael Kryzanek

The program of study for Political Science majors is designed to give students an understanding of the political and governmental structure in their own country and in other parts of the world, and to develop their interest in contemporary public affairs and governmental problems. The Political Science major aims to provide a foundation for the study of law, for graduate work in Political Science or Public Administration with a view toward teaching or government service, and for work in international relations.

Political Science Major

PO-272, PO-371, PO-372, PO-373, PO-374, PO-375, PO-376, PO-377, PO-472, PO-473, PO-475

EC-200, EC-320

HI-221, HI-222, HI-318 and one additional History Course (Excluding HI-111 - HI-112)

A one-year sequence of foreign language study at the intermediate level, or its equivalent

Political Science Major/Secondary Education Minor

PO-271, PO-272, PO-371, PO-372, PO-374, PO-375, PO-377, PO-379, PO-471 HI-221, HI-222 plus four additional History courses (excluding HI-111 - HI-112)

A one-year sequence of foreign language study at the intermediate level, or its equivalent.

PO 271 Western Political Thought—Plato to the Present 3 crs.

Development of political ideas from ancient times to the modern era.

PO 272 American Government: the Federal System 3 crs.

The constitutional authority, organization, activities, and political processes of the national government.

PO 273 U. S. and Massachusetts Constitutions 1 cr.

Structure of government and rights and responsibilities according to Federal and Commonwealth constitutions.

PO 371 Comparative Government 3 crs.

Prq.: PO 271 or PO 272.

Political behavior and governmental systems in Great Britain, France, the Soviet Union, etc.

PO 372 Legislative Process and Procedure 3 crs.

Prq.: PO 272, PO 377.

The role of legislatures in modern American government, federal and state; the relationship of the voter and of apportionment to law-making; the two-party system and its impact on the law-making process; the committee system and seniority, and constitutional limitations on legislatures.

PO 373 Political Theory — Ancient and Medieval 3 crs.

Prq.: PO 272.

Western political thought from Plato to Sir Thomas More. Emphasis upon the basic concepts and persistent questions of political theory and their relevance to contemporary problems through systematic analysis of major works.

PO 374 Political Thought: Modern and Contemporary 3 crs.

The ideas of major political thinkers in the era of the modern nation-state.

PO 375 Political Parties 3 crs.

Prq.: PO 272, PO 377.

The historical development of the American party system, and contemporary aspects of its functioning, at the national, state, and local level.

PO 376 Municipal Government 3 crs.

Prq.: PO 272, PO 377.

Intensive study of selected problems of structure, organization, and powers of local government; intergovernmental relationships; administrative and personnel management; special emphasis on local government in Massachusetts.

PO 377 American Government: State and Local Government 3 crs.

Prq.: PO 272.

Government and politics with emphasis on Massachusetts affairs.

PO 379 Introduction to Public Administration 3 crs.

Prq.: PO 272, PO 377.

The relationship of the administrative branch of government to other branches in the making and implementation of public policy; theories of government organization for efficient administration; problems of budgeting, personnel, merit systems, types of agency organization, popular control over the bureaucracy.

PO 471 International Relations 4.5 crs.

Prq.: PO 272, PO 377.

The patterns of inter-state relations, the development of international law, international organizations, and the factors motivating the behavior of nations. Three periods weekly for one and one-half semesters.

PO 472 American Constitutional Development 3 crs.

Prq.: PO 272, PO 374, PO 377.

Principles and concepts of the U. S. Constitution, as revealed in leading court decisions. Judicial review, federalism, separation of powers, implied powers, due process of law, equal protection, the contract clause, etc.

PO 473 International Law and Organization 3 crs.

Prq.: PO 272, PO 371, PO 377.

The evolution of international law and organization from early beginnings to the United Nations system; the principles of international law and organization, their integration, and the effect of international politics thereon; the theoretical and practical aspects of the international legal process; the structure, functions and procedures of the United Nations, etc.

PO 475 Senior Seminar in Political Science 3 crs.

Prq.: Admission is subject to the consent of the departmental chairman and the instructor.

The undertaking of independent study, and a research project presented in oral and written form.

PO 499 Directed Study in Political Science 1-3 crs.

Prq.: Consent of the Department

Open to Juniors and Seniors who have demonstrated critical and analytical abilities in their studies and who wish to pursue a project independently. May be taken twice for a maximum of six credits.

INTERDEPARTMENTAL PROGRAMS

CHEMISTRY—GEOLOGY

A major in Chemistry-Geology is offered jointly by the Departments of Chemical Sciences and Earth Sciences and Geography. This program is designed to prepare students for graduate school and professional employment in geo-chemistry and geology. Careers in these fields may involve petroleum, mineral and groundwater exploration, or research in geochronology, mineralogy, crystallography and oceanography. This major is particularly suited to students interested in chemical or geological oceanography. The program is flexible in that it allows the student to specialize in a variety of areas by suitable choice of electives.

Chemistry-Geology majors are required to take the following courses: CH 141-142 (or CH 131-132); ES 181, 192, 372. In addition to the above requirements, majors must elect a minimum of two additional semesters of chemistry, two semesters of physics, and two semesters of mathematics. In addition to these electives the student must elect a minimum of six hours of chemistry, earth sciences, mathematics, or physics which have been approved by the student's advisor.

The Chemistry-Geology major at Bridgewater State College is recognized by the New England Student Regional Program as an undergraduate four-year degree opportunity for residents of New England. Students who are legal residents of Connecticut, Maine, New Hampshire, Rhode Island, and Vermont and are accepted for study in this major will pay only the instate tuition fee.

PRE-MEDICAL

Although medical schools indicate that they do not require a major in a particular discipline, they expect applicants to have achieved high academic standing in the fields of biology, chemistry, physics, mathematics, English, and foreign languages. Most students who plan to enter medicine as a profession will find it advisable to major in either biology or chemistry. A student who is interested in medicine should consult both his major advisor and a member of the Pre-medical and Pre-dental Committee early in his freshman year.

PRE-DENTAL

While some dental schools admit applicants after three years of college work, most prefer students with a bachelor's degree. As in medicine, there is no requirement for a major in a particular discipline. Most students who plan to enter dentistry as a profession will find it advisable to major in either biology or chemistry. Applicants for dental school should meet the requirements of the major in a given department and must also satisfy the requirements in biology, chemistry, physics, and English as set by each dental school. A student who is interested in dentistry should consult both his major advisor and a member of the Pre-medical and Pre-dental Committee early in his freshman year. Pre-medical and Pre-dental Committee: Professors Wilmon Chipman, Kenneth Howe (Chairman), Walter Morin, Kenneth Sumner.

OCEANOGRAPHY

Programs in oceanography are offered as a cooperative effort of all departments within the Division of Natural Sciences and Mathematics. These programs are de-

INTERDEPARTMENTAL PROGRAMS

signed to prepare students for graduate school or professional employment in oceanography. Bridgewater State College is a member of the Marine Sciences Consortium based at the Massachusetts Marine Academy. Summer programs in the Consortium allow the student to participate in course work in specialized areas of oceanography, to participate in research, and to gain experience in actual field techniques on board ship. Participation in this program provides the student with the necessary foundation for either further academic work in oceanography or employment in a variety of areas.

Most graduate schools of oceanography require an undergraduate major in biology, chemistry, earth sciences, or physics. All students interested in an oceanography program should major in one of these disciplines. Graduate schools of oceanography expect students to include the following courses in their undergraduate programs: Calculus I and II, Inorganic Chemistry and Qualitative Analysis or General Chemistry, General Physics or elements of Physics, Quantitative Analysis, General Botany, General Zoology, Physical Geology, and Introduction to Oceanography I and II.

These courses, together with one of the majors indicated above, provide a basic foundation for further study in one of the four principal branches of oceanography, i.e.: biological oceanography, chemical oceanography, geological oceanography, and physical oceanography. Additional courses in related areas may be selected by the student with the approval of his major advisor. A student who is interested in oceanography should consult both his major advisor and a member of the Advisory Committee on Oceanography during his freshman year. Advisory Committee on Oceanography: Professors Elizabeth Cirino (Chairman), Robert Boutilier, Henry Daley.

URBAN AFFAIRS

The College offers an interdisciplinary minor in Urban Affairs under the auspices of the Anthropology, Geography, History, Political Science, Psychology, and Sociology Departments. A major purpose of this minor is to provide students with a broader understanding and sensitivity of the complex problems facing the urban environment through the combined efforts of different disciplines at the college. The program is designed to provide students with an opportunity for direct contact and work in fields such as urban planning, urban government, social welfare, social psychology, and urban education.

This minor is open to all college students, although the greatest number of potential minor candidates will most likely come from the disciplines of Anthropology, Geography, History, Political Science, Psychology, and Sociology. Courses taken to satisfy requirements of a major may not be counted in the minor. Students interested in this program are encouraged to take their General Education electives in the area of minority studies. The minor program consists of two options:

OPTION A:

Open primarily to qualified students majoring in Anthropology, Geography, History, Political Science, Psychology and Sociology. Students are required to take four of the following courses, excluding the one in their major:

SO 306 (Urban Sociology); ES 353 (Urban Geography);

PY 230 (Social Psychology); AN 307 (Urban Dynamics);

PO 377 (State and Local Government) or PO 376 (Municipal Government) 12 Credits

Internship: This internship is similar to student teaching. Students are placed for a quarter in a planning agency, municipal government office, health department, welfare office or other urban agency. The purpose of this internship is to allow a student to become familiar with the various aspects of his urban interest 6 Credits

Total 18 credits

OPTION B:

Required:

SO 306 (Urban Sociology); ES 353 (Urban Geography);
PY 230 (Social Psychology); AN 307 (Urban Dynamics);
PO 377 (State and Local Government) or PO 376 (Municipal Government) 15 credits

Elective from:

SO 312 (Urban Minority Relations);
PO 376 (Municipal Government) or PO 377 (State and Local Government) 3 credits

Total 18 credits

Students interested in this program should contact their Department Chairman for further information.

BEHAVIORAL SCIENCES/HISTORY

A joint major with history is available for those majoring in anthropology, psychology, or sociology who wish to become certified as Social Studies teachers. This program is open only to those students who elect a Secondary Education minor.

The requirements for the Secondary Education minor are listed under the Department of Secondary Education.

History requirements for a joint major:

HI-111, HI-112, HI-221, HI-222

Four additional History courses (two of which must be in the non-U.S. History)

A one-year sequence of foreign language study at the intermediate level, or its equivalent.

Anthropology requirements for a joint major:

Any nine additional courses in anthropology.

Behavioral Sciences requirements for a joint major:

AN-201, AN-205, SO-202, SO-306, PY-200, PY-230

Two additional courses in one of the three departments.

Psychology requirements for a joint major:

PY-200, PY-210, PY-226, PY-230

Five additional courses in Psychology.

Sociology requirements for a joint major:

SO-202, SO-303, SO-306, SO-400

Five additional courses in Sociology.

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*As of February 1, 1974

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Graduate catalogues should be addressed to the Office of the Graduate School.

Continuing Education brochures should be addressed to the Division of Continuing Education.

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Students who hold a bachelor's and/or a master's degree from this college should write to the Registrar.

Students who have not completed their bachelor's degree should write to the Registrar for a transcript of courses taken through the Day Session, and to the Director of Continuing Education for a transcript of courses taken through the Division of Continuing Education.

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There is a charge of \$1.00 per transcript.

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